NORTHERN NEW MEXICO COLLEGE

DEGREE SHEET / 2016-2017 CATALOG

Student Name:	
Eagle ID:	
Eagle Email:	
Phone:	

BACHELOR OF ENGINEERING (BEng)
INFORMATION ENGINEERING TECHNOLOGY

The curriculum of the BEng in Information Engineering Technology is designed for those engineering students who intend to launch a career in the design, installation, maintenance, and repair of computer networks used for critical data entry, transfer, retrieval, and management. Coursework in the program is practice-orientated and prepares students to work in a variety of computer-intensive environments, such as technical organizations, small or large businesses, product design or manufacturing companies, and data-directed services. The breadth of training in hardware, software, troubleshooting equipment, and other computer tools will enable the graduate to work in a variety of roles in such environments as network designer, network support and administrator, project manager, data applications or computer communications engineer, test and integration manager or technologist in business applications. The graduate of this curriculum will be a computer network specialist, but versed in mathematics, physics, computer science, and business fundamentals.

Students are advised to not attempt upper division coursework (300 and 400-level classes) until you have earned a GPA of 2.50 or better in all IT, CS, and CT coursework taken at the 100 and 200-level. Failure to maintain an overall GPA of 2.00 or better in all coursework will be sufficient cause for being dropped from the program.

GENERAL EDUCATION REQUIREMENTS (39 Credits)	SEMESTER	GRADE
AREA I: COMMUNICATIONS (9 Credits)		
ENG 111 English Composition I (3) *Prerequisite: ENG 109 or adequate score on the Course Placement Evaluation*		
ENG 116 Technical Writing (3) *Pre-requisite: ENG 111*		
SPCH 130 Public Speaking (3) *Prerequisite: ENG 109 or adequate score on the Course Placement Evaluation*		
AREA II: MATHEMATICS (3 Credits)		
MATH 145 Introduction to Probability and Statistics (3) *Pre-requisite: MATH 130 or adequate score on the Course Placement Evaluation*		
AREA III: LABORATORY SCIENCE (9 Credits)		
ENGR 215 Physics for Engineers I (2) *Pre-requisite: ENGR 121L*		
ENGR 217L Physics for Engineers III (3) *Pre-requisite: ENGR 122L*		

Elective Laboratory Science (4) You must select a course from the following list*:*		
ASTR 110/L Introduction to Astronomy with Lab (4)		
PHYS 122/L Applied Physics II with lab (4)		
PHYS 216/L Engineering Physics II with lab (4)		
CHEM 121/L General Chemistry I with Lab (4)		
ES 112/L Introduction to Environmental Science with Lab (4)		
BIOL 101/L Current Topics in Biology with Lab (4)		
GEOL 110/L Physical Geology with Lab (4)		
AREA IV: SOCIAL/BEHAVIORAL SCIENCES (6-9 Credits) *Students must complete a minimum of 15 credit hours spread between areas IV and V.*		
Select one class from the following list:		
ECON 201 Microeconomics (3) *Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation*		
Electives (3-6 Credits) You must select courses from different discipline areas (see Catalog Page 26)		
Elective (3) _____		
Elective (3) _____		
AREA V: HUMANITIES AND FINE ARTS (6-9 Credits) *Students must complete a minimum of 15 credit hours spread between areas IV and V.*		
Second Language (3)		
Electives (3-6 Credits) You must select courses from different discipline areas (see Catalog Page 27)		
Elective (3) _____		
Elective (3) _____		
AREA VI: FIRST YEAR EXPERIENCE (3 Credits)		
FYE 101 First Year Experience (3) *Pre-requisite: None*		
SUPPORT COURSES (8 Credits)		
MATH 162E Calculus I (4) *Pre-requisite: MATH 155*		
MATH 163E Calculus II (4) *Pre-requisite: MATH 162E*		
PROGRAM REQUIREMENTS (73 Credits)		
Computer Science (3 Credits)		
CS 201 Math Foundations of Computer Science (3) *Pre-requisite: EECE 152L*		

Electrical, Electronic, and Computer Engineering (32 Credits)		
EECE 105L Microcomputer Systems (3) *Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation*		
EECE 132 Computer Networks I (3) *Prerequisite: None*		
EECE 152 Computer Programming I (3) *Pre-requisite: None*		
EECE 152L Computer Programming I (3) *Pre-requisite: None*		
EET 201 Digital Systems (2) *Pre-requisite: ENGR 121L*		
EET 201L Digital Systems (2) *Pre-requisite: ENGR 121L*		
EECE 230 Introduction to Routing and Switching (3) *Pre-requisite: EECE 132*		
EECE 231L Intermediate Programming (3) *Pre-requisite: EECE 152L*		
EECE 329 Human Computer Interaction (3) *Pre-requisite: EECE 231L*		
EECE 330 Computer Networks II (3) *Pre-requisite: EECE 132*		
EECE 351 Advanced Programming (3) *Pre-requisite: EECE 231L*		
EECE 355 Advanced Programming (3) *Pre-requisite: EECE 231L*		
EECE 440 Advanced Computer Networks (3) *Pre-requisite: EECE 330*		
Information Technology (15 Credits)		
IT 250 Introduction to Databases (3) *Pre-requisite: EECE 152L*		
IT 350 Database Management (3) *Pre-requisite: IT 250*		
IT 410 Information Assurance/Security (3) *Pre-requisite: EECE 230 and EECE 330*		
IT 490 Capstone I (3) *Pre-requisite: EECE 152L, Senior Standing*		
IT 491 Capstone II (3) *Pre-requisite: EECE 152L, Senior Standing*		
Business (4 Credits)		
ENGR 480 Engineering Management and Project Management (4) *Pre-requisite: Permission of Academic Advisor*		
Support Technologies (19 Credits)		
EECE 110L Introduction to Engineering (2) *Pre-requisites: None*		
ENGR 121L Introductory Math for Engineering Applications I (2) *Pre-requisite: MATH 150 or adequate score on the Course Placement Evaluation*		
ENGR 122L Introductory Math for Engineering Applications II (2) *Pre-requisite: ENGR 121L*		
Electives from EECE/CS/IT/MATH/ENGR (13 CR). At least 10 upper division credits		

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TOTAL CREDITS 120		
ADVISOR APPROVAL	**DATE**	

SUGGESTED SEQUENCE OF COURSES

FIRST SEMESTER (16)
    FYE   100   First Year Experience (3)
    ENGR 110L Introduction to Engineering (2)
    ENGR 121L Introductory Math for Engineering Applications I (2) (First 8 weeks)
    EECE 132 Computer Networks I (3)
    ENGR 215 Physics for Engineers I (2) (second 8 weeks)
    Elective   Laboratory Science (4)

SECOND SEMESTER (14)
    ENG   111 English Composition I (3)
    EECE 152L Computer Programming I (3)
    ENGR 122L Introductory Math for Engineering Applications II (2)
    EECE 230 Introduction to Routing and Switching (3)
    EECE/CS/IT/MATH/ENGR Elective (3)

THIRD SEMESTER (15)
    EECE 105L Microcomputer Systems (3)
    ENG   116 Technical Writing (3)
    PHYS 217L Physics for Engineers III (3)
    MATH 145 Introduction to Probability and Statistics (3)
    IT   250 Introduction to Databases (3)

FOURTH SEMESTER (15)
    SPCH 130 Public Speaking (3)
    ECON 201 Microeconomics (3)
    EECE 231 Intermediate Programming (3)
    CS/EECE/IT/MATH/ENGR/ Elective (3)
    HFA   Elective (3)

FIFTH SEMESTER (16)
    MATH 162E Calculus I (4)
    CS   201 Math Foundations of Computer Science (3)
    EECE 329 Human Computer Interaction (3)
    EECE 330 Computer Networks II (3)
    IT   350 Database Management (3)

SIXTH SEMESTER (16)
    MATH 163E Calculus II (4)
    EET   201L Digital Systems (2)
    EECE 355 Web Engineering (3)
    ENGR 480 Engineering Management and Project Management (4)
    CS/EECE/IT/MATH/ENGR Elective (3)

SEVENTH SEMESTER (15)
    EECE 440 Advanced Computer Networks (3)
    IT   490 Capstone I (3)
    SBS   Elective (3)
    Foreign Language (3)
    EECE/CS/IT/MATH/ENGR Elective (3)

EIGHTH SEMESTER (13)
    EECE 351 Advanced Programming (3)
    IT   410 Information Assurance/Security (3)
    IT   491 Capstone II (3)
    SBS or HFA Elective (3)
    EECE/CS/IT/MATH/ENGR Elective (1)

EDUCATIONAL PLANNING FORM (Semester)

FALL SEMESTER	SPRING SEMESTER	SUMMER
Total Units	Total Units	Total Units
FALL SEMESTER	SPRING SEMESTER	SUMMER
Total Units	Total Units	Total Units
FALL SEMESTER	SPRING SEMESTER	SUMMER
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