



**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)		COMPLETED	PLANNED TIMELINE (By Semester)
Area 1: Communications (9)			
ENG 111	English Composition I (3) <i>Prerequisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
ENG 116	Technical Writing (3) <i>Pre-requisite: ENG 111</i>	_____	_____
SPCH 130	Public Speaking (3) <i>Prerequisite: ENG 109 or adequate score on the Course Placement Evaluation</i>	_____	_____
Area 2: Mathematics (3)			
MATH 145	Introduction to Probability and Statistics (3) <i>Pre-requisite: MATH 130 or adequate score on the Course Placement Evaluation</i>	_____	_____
Area 3: Laboratory Science (9)			
ENGR 215	Physics for Engineers I (2) <i>Pre-requisite: ENGR 121L</i>	_____	_____
ENGR 217L	Physics for Engineers III (3) <i>Pre-requisite: ENGR 122L</i>	_____	_____
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 4: Social/Behavioral Sciences (6-9)			
Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation			
ECON 201	Microeconomics (3)	_____	_____
Elective (3)	_____	_____	_____
Elective (3)	_____	_____	_____
You must select courses from at least one different discipline areas from the following list:			
ANTH 101/L	Physical Anthropology w/Lab (4)		
ANTH 102	Intro to Social & Cultural Anthropology (3) (Fall)		
ANTH 111	Language and Culture (3)		
ANTH 207	Cultures of New Mexico (3)		

- ANTH 110 Indian Culture of the Southwest
- ECON 200 Macroeconomics (3)
- ECON 201 Microeconomics (3)
- GEOG 111 World Geography (3)
- PSCI 110 The Political World (3)
- PSCI 120 Contemporary Political Issues (3)
- PSCI 200 American Politics (3)
- PSCI 210 State and Local Government (3)
- PSCI 212 The American Presidency (3)
- PSY 105 General Psychology (3)
- PSY 210 Theories of Personality (3)
- PSY 229 Adolescent Psychology (3)
- PSY 230 Psychology of Adjustment (3)
- PSY 232 Abnormal Behavior (3)
- PSY 270 Social Psychology (3)
- PSY 290 Developmental Psychology (3)
- SOC 101 Introduction to Sociology (3)
- SOC 213 Deviant Behavior (3)
- SOC 216 Ethnic and Intercultural Relations (3)
- SOC 220 Social Problems (3)
- SOC 225 Marriage and the Family (3)

* Plus, topic courses with student advisor's approval

Area 5: Humanities and Fine Arts (6-9)

Second Language (3)

Prerequisite: ENG 109 or adequate score on the Course Placement Evaluation

Electives (3-6 crs)

You must select courses from at least two different discipline areas

Elective (3) _____

Elective (3) _____

Choose two electives from the following list:

- ART 105 Introduction to Art (3)
- ART 107 History of Art I (3)
- ART 208 History of NM Art & Architecture (3)
- ART 211 History of Art II (3)
- DANC 240 Dance Appreciation (3)
- ENG 270 Children's Literature (3)
- Pre-requisite ENG 111*
- ENG 262 Literature of the Southwest (3)
- Pre-requisite ENG 112*
- ENG 265 Native American Literature 1 (3)
- Pre-requisite ENG 111*
- ENG 266 Native American Literature II (3)
- Pre-requisite: ENG 111*
- ENG 280 Readings in Literature (3)
- Pre-requisite ENG 111*
- ENG 290 Study of Literature
- Pre-requisite ENG 111*
- ENG 294 Mythology (3)
- Pre-requisite ENG 111*
- HIST 101 Western Civilization I (3)
- HIST 102 Western Civilization II (3)
- HIST 161 History of the U.S. to 1877 (3)
- HIST 162 History of the U.S. from 1877 (3)
- HIST 200 History of the World Religions (3)
- HIST 220 Southwestern Women's History (3)
- HIST 230 Chicano Experience in the US (3)
- HIST 250 American Indian History (3)
- HIST 260 History of New Mexico (3)
- HUM 101 Humanities I (3)
- HUM 102 Humanities II (3)
- HUM 105 Humanities of the Southwest (3)
- HUM 311 Why the Social Sciences Matter (3)
- HUM 414 Humanity and Creativity (3)

- HUM 421 History, Literature, Art & Philosophy (3)
 - MUS 103 Music History & Literature I (3)
 - MUS 105 Music Appreciation (3)
 - MUS 218 Music History & Literature II (3)
 - PHIL 110 Intro to Philosophical Problems (3)
 - PHIL 111 History of Philosophy (3)
 - PHIL 150 Critical Thinking (3)
 - PHIL 220 Ethics (3)
 - PIS 200 Introduction to Pueblo Indian Studies (3)
 - THE 120 Introduction to Theatre I (3)
 - THE 130 History of Theatre (3)
- Plus, topic courses with advisor's approval

Area 6: First Year Experience (3)

FYE 101 Freshman Year Experience (3)

Pre-requisite: None

SUPPORT COURSES (8)

MATH 162E Calculus I (4)

Pre-requisite: MATH 155, ENGR 120

MATH 163E Calculus II (4)

Pre-requisite: MATH 162E

MAJOR REQUIREMENTS (73)

Computer Science (3 crs)

CS 201 Math Foundations of Computer Science (3)

Pre-requisite: EECE 152L

Electrical, Electronic, and Computer Engineering (32)

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 152L Computer Programming I (3)

Pre-requisite: None

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 Web Engineering (3)

Pre-requisite: EECE 231L and IT 250

EECE 440 Advanced Computer Networks (3)

Pre-requisite: EECE 330

Information Technology (15)

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)

ENGR 480 Engineering Management and Project Management (4)

Pre-requisite: Permission of Academic Advisor

Support Technologies (19)

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). At least 10 upper division credits

TOTAL CREDIT HOURS 120**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 Elective lower or upper division (3)

Third Semester (15)

EECE 105L Microcomputer Systems (3)

ENG 116 Technical Writing (3)

PHYS 217L Physics for Engineering 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 3XX/4XX (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 3XX/4XX (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 3XX/4XX (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 3XX/4XX (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
Total Units	Total Units	Total Units

Advisor's Signature _____

Student Signature _____