2015-2016 / Jorge Crichigno 505.747.5429

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 (38 crs)	**COMPLETED (By Semester)**	**PLANNED TIMELINE**
Area I Communications (9 crs)		
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 crs)		
MATH 145 Introduction to Probability and Statistics (3)	_____	_____
Pre-requisite: MATH 130 or adequate score on the Course Placement Evaluation		
Area III Laboratory Sciences (8 crs)		
PHYS 215/L Engineering Physics I with lab (4)	_____	_____
Pre-requisite: ENGR 120 OR MATH 155; Co-requisite: PHYS 215L		
Elective (4) _____	_____	_____
You must select a course from the following list:		
ASTR 110/L Intro to Astronomy with Lab (4)	_____	_____
PHYS 122/L Applied Physics II with lab (4)	_____	_____
PHYS 215/L Engineering Physics I 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 110/L Current Topics in Biology with Lab (4)	_____	_____
GEOL 101/L Physical Geology with Lab (4)	_____	_____
Area IV Social/Behavioral Sciences (6-9 crs)		
Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation		
ECON 201 Microeconomics (3)	_____	_____
Electives (3-6 crs)		
You must select courses from *two different discipline areas (in case you take 6crs)* from the following list:		
Elective (3) _____	_____	_____
Elective (3) _____	_____	_____
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 Poltical 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 V Humanities and Fine Arts (6-9 crs)
Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation
Second Language (3) _____ _____
Prerequisite: ENG 109 or adequate score on the Course Placement Evaluation
Electives (3-6 crs)
You must select courses from *two different discipline areas (in case you take 6crs)* from the following list*:*
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)
DANC240 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

* If your major is in the area of the Humanities/Fine Arts, unless otherwise regulated by a given department, you should select 9 hrs from Area V and 6 hrs. from Area IV; if in the Social/Behavioral Sciences, you should select 9 hrs from Area IV and 6 hrs from Area V. Consult your major advisor. In any case, you must complete a minimum spread of 15 hrs between Areas IV and V. .

** Students in associate degree programs are advised that upper-division courses are not covered under financial aid.

Area VI First Year Experience (3 crs)

FYE 100 First Year Experience (3)
Pre-requisite: None

SUPPORT COURSES (8 crs)

MATH 162E Calculus I (4) _____ _____
Pre-requisite: MATH 155, ENGR 120
MATH 163E Calculus II (4) _____ _____
Pre-requisite: MATH 162E

MAJOR REQUIREMENTS (77 crs)

Computer Science (3 crs)

CS 201 Math Foundations of Computer Science (3) _____ _____
Pre-requisite: EECE 152L

Electrical, Electronic, and Computer Engineering (37)

EECE 105L Microcomputer Systems (3) _____ _____
Pre-requisite: ENG 109 or adequate score on the Course Placement Evaluation
EECE 111 Introduction to Web Programming (3) _____ _____
Pre-requisite: None
EECE 132 Computer Networks I (3) _____ _____
Prerequisite: None
EECE 152L Computer Programming I (3) _____ _____
Pre-requisite: None
EET 200/L Electrical Systems I with Lab (4) _____ _____
Pre-requisite: ENGR 120
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, EECE 342

Information Technology (15 crs)

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 crs)
ENGR 480 Engineering Management and Project Management (4) _____ _____
Pre-requisite: Permission of Academic Advisor

Support Technologies (18 crs)
EECE 110 Introduction to Engineering (2) _____ _____
Pre-requisites: None
ENGR 120 Introductory Math for Engineering Applications (4) _____ _____
Pre-requisites: MATH 130
Electives from EECE/CS/IT/MATH/ENGR (12). At least 9 upper division credits
_____ _____ _____
_____ _____ _____
_____ _____ _____

TOTAL CREDIT HOURS 123

SUGGESTED SEQUENCE OF COURSES

First Semester (15 crs)
- FYE 100 First Year Experience (3)
- ENGR 110L Introduction to Engineering (2)
- EECE 111 Introduction to Web Design (3)
- ENGR 120L Introductory Math for Engineering Applications (4)
- EECE 132 Computer Networks I (3)

Second Semester (17 crs)
- ENG 111 English Composition I (3)
- EECE 152L Computer Programming I (3)
- EET 200 Electrical Systems I with Lab (4)
- PHYS 215/L Engineering Physics I with lab (4)
- EECE 230 Introduction to Routing and Switching (3)

Third Semester (16 crs)
- EECE 105L Microcomputer Systems (3)
- ENG 116 Technical Writing (3)
- MATH 145 Introduction to Probability and Statistics (3)
- IT 250 Introduction to Databases (3)
- Elective Laboratory Science (4)

Fourth Semester (15 crs)
- SPCH 130 Public Speaking (3)
- ECON 201 Microeconomics (3)
- EECE 231 Intermediate Programming (3)
- EECE/IT/CS/MATH/ENGR Elective lower or upper division (3)
- HFA Elective (3)

Fifth Semester (16 crs)
- MATH 162 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 crs)
- MATH 163 Calculus II (4)
- EECE 350 Advanced Programming (3)

EECE 355 Web Engineering (3)
ENGR 480 Engineering Management and Project Management (3)
EECE/CS/IT/MATH/ENGR Elective 3XX/4XX (3)

Seventh Semester (16 crs)
EECE 440 Advanced Computer Networks (3)
IT 490 Capstone I (4)
SBS Elective (3)
Second Language (3)
EECE/CS/IT/MATH/ENGR Elective 3XX/4XX (3)

Eighth Semester (12 crs)
IT 410 Information Assurance/Security (3)
IT 491 Capstone II (3)
SBS or HFA Elective (3)
EECE/CS/IT/MATH/ENGR Elective 3XX/4XX (3)

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**