

1981

Bachelor of Science & Engineering Program Overview

Nova Southeastern University

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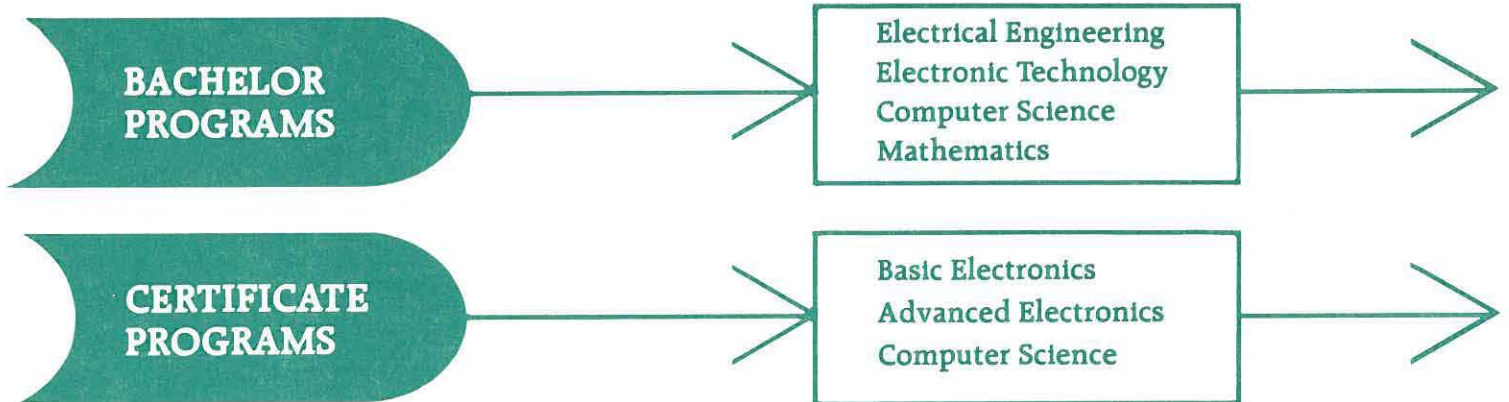
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NOVA COLLEGE

The Corporate Division



Develop Your Technical Potential

Part Time and Full Time Degree Programs

Designed for the Working Adult in Cooperation with Industry

"Second Bachelor" Programs for those who now need a Technical Degree

FORMAT

Classes will meet for 4.5 hours for 9 sessions either in the evening from 6-10:30 PM or on Saturday from 8:30 AM-1:00 PM at the main Nova campus, or at industrial sites.

ADMISSION REQUIREMENTS

Students must be high school graduates (or equivalent), and take the Corporate Division Placement Test, which will evaluate ability to read, write, and perform mathematical calculations (hand calculator permitted) on the level needed for college work. College Board or Miller Analogy scores may be substituted by students in lieu of Placement Test. A student may take up to 2 courses as a Special Student or while in the process of applying before taking the Placement Test.

CAN I TAKE A COURSE OR TWO WITHOUT ENROLLING IN A DEGREE PROGRAM?

YES. In this case, you check "Special Student" on the application form. You do not have to take the Placement Test to take one or two courses as a "special student."

FOR INFORMATION CALL:

BROWARD COUNTY: 475-7650

DADE COUNTY: 940-6644, Ext. 7649/50 (toll free)

PALM BEACH COUNTY: 732-6600, Ext. 7649/50 (toll free)

Nova University / College Avenue / Fort Lauderdale, Florida 33314

Nova University is fully accredited by the Southern Association of Colleges & Schools

HOW DO I APPLY FOR ADMISSION?

Complete the application forms and return with a non-refundable \$15.00 application fee by mail or in person. All checks should be made payable to NOVA UNIVERSITY. All materials should be sent to Nova College, Registrar's Office, Nova University, 3301 College Avenue, Fort Lauderdale, FL 33314.

HOW DO I REGISTER?

Discuss your needs with the counselor, by phone or in person, complete the registration form. It should be returned with a check in the appropriate amount made out to NOVA UNIVERSITY, and sent to the same address as indicated in the admission question above.

WHAT IS THE COST OF ATTENDING?

Application fee (non-refundable):	\$15.00
Registration fee:	\$15.00
Tuition (per credit)	\$75.00
Late registration fee (after Feb. 27)	\$10.00

WHAT CREDIT CARDS CAN I USE?

Master Charge
VISA
Hollywood Buy-O-Matic

Please mail to: Dr. Anna Mae Walsh Burke, Director
 Nova College: The Corporate Division
 Nova University
 3301 College Avenue
 Ft. Lauderdale, FL 33314

_____ Electrical Engineering
 _____ Electronic Technology
 _____ Computer Science
 _____ Computer Systems
 _____ Other

Please send information on Corporate Division Programs:

NAME _____ HOME PHONE _____
 ADDRESS _____ EMPLOYER _____
 _____ BUSINESS PHONE _____
 (City) _____ (State) _____ (Zip) _____

(THIS IS NOT A REGISTRATION FORM)

COURSES BEGINNING MARCH 9, 1981

COURSE NO.	SECTION	DESCRIPTION	DAY	TIME	LOCATION
CS 170	A	Computer Programming I	T	6:00-10:30pm	P 208
CS 170	B	Computer Programming I	Th	8:30-1:00pm	P 208
CS 220	A	Business Oriented Language (COBOL)	Th	6:00-10:30pm	TBA
CS 230	A	Structured programming	W	6:00-10:30pm	P 208
CS 240	A	Digital Design	S	8:30-1:00pm	TBA
CS 240	B	Digital Design	S	8:30-1:00pm	Palm Bch.
CS 310	A	Programming Techniques	T	6:00-10:30pm	P 213
CS 350	A	Computer Circuit Design	Th	6:00-10:30pm	P 208
EE 440	A	Energy Systems	W	6:00-10:30pm	P 209
ETR 110	A	Networks I	Th	6:00-10:30pm	P 209
ETR 110	B	Networks I	T	8:30-1:00pm	P 208
ETR 120	A	Electronics I	S	8:30-1:00pm	P 208
ETR 130	A	Electronics Lab I	M	6:00-10:30pm	P 3rd fl.
ETR 230	A	Electronics Lab II	M	6:00-10:30pm	P 3rd fl.
ETR 255	A	Electricity Lab	M	6:00-10:30pm	P 3rd fl.
ETR 430	A	Networks III	T	6:00-10:30pm	P 130
MAT 150	A	College Math	Th	6:00-10:30pm	P 106
MAT 220	A	Calculus II	Th	6:00-10:30pm	P 214
MAT 310	A	Differential Equations	Th	6:00-10:30pm	P 107
PHY 140	A	Physics I	W	6:00-10:30pm	P 107

COURSE DESCRIPTIONS

CS-170 Computer Programming I

An introduction to good programming techniques including flow charting, code design, debugging techniques and documentation, problem-solving methods and algorithm development to be used in the design of computer programs. The language, BASIC, will be taught as part of this course. An introduction to the use of microcomputers and computer terminals.

CS-220 Business Oriented Language (COBOL)

A detailed study of COBOL languages with application to business problems, identifications, environment, data and procedure divisions, syntax structure. File organization is discussed in connection with the data processing system.

Prerequisite: Computer Programming I or Equivalent.

CS-230 Structured Programming

Basic principles of structured programming and language foundation. PASCAL will be taught as an example of a structured programming language.

Prerequisite: Computer Programming I or Equivalent.

CS-240 Digital Design

Continuation of Digital Systems course with particular emphasis on the organization and structuring of major hardware components and peripheral devices. The mechanics of information transfer and control within a digital system and the fundamentals of logic design will be discussed. **Prerequisite:** Digital Systems or Equivalent

CS-310 Programming Techniques

Advanced programming techniques including algorithm analysis, database management, memory management. **Prerequisite:** Digital Systems, Computer Programming II, some advanced languages.

CS-350 Computer Circuit Design

Design of combinational and sequential digital circuits. **Prerequisite:** Digital Design.

EE-440 Energy Systems

Conversion of energy between electrical and other forms — electromechanical, electrochemical, photoelectric, thermoelectric and other methods of conversion are studied, transmission of electric power. **Prerequisite:** Physics II and Electronics I

ETR 110 Networks I

Definitions of change, current voltage, energy, Ohm's Law, Kirchoff's Law, networks, resistance, voltage, Current Power, Nodal analysis, mesh analysis, princi-

ple of superposition, power transfer, Thevin and power theorems. Two port networks, admittance parameter, impedance parameters, hybrid parameters. **Prerequisite:** College Mathematics or Equivalent.

ETR-120 Electronics I

Physical theory and analysis of semi-conductor properties, circuits containing non-linear elements, semi-conductor diodes, zener diodes, conduction in semi-conductors, transistor characteristics, large system signal analysis, small models, single-stage amplifiers.

Prerequisite: Networks I or Circuit Theory I and Circuit Theory II

ETR-130 Electronics Lab I - (1 cr.)

Lab work to complement electronics theory course. **Prerequisite:** Networks I, or Circuit Theory I and Circuit Theory II, and Electronics I

ETR-230 Electronics Lab II - (1 cr.)

Lab work to complement electronics theory course. **Prerequisite:** Electronics Lab I, Electronics II

ETR-255 Electricity Laboratory

Basic lab to complement Networks theory courses.

ETR-430 Networks III

Continuation of Networks II to include Fourier series and Z-transforms, magnetic coupling, introduction to filter theory, and advanced topics in Networks Theory. **Prerequisite:** Networks II, Calculus II

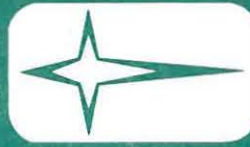
SUMMARY OF PROGRAM REQUIREMENTS

All courses are 3 semester hours of credit unless otherwise indicated.

EE	ET	CS	MATH	SYS	BEC	AEC	
x	x	x	x	x	x		Communications (3 cr.)
x	x	x	x	x			Communications (3 cr.)
x	x	x	x	x			Social Science (3 cr.)
x	x	x	x	x			Social Science (3 cr.)
x	x	x	x	x			Humanities (3 cr.)
x	x	x	x	x			Humanities (3 cr.)
x	x	x	x	x			Behavioral Science (3 cr.)
x	x	x	x	x			Behavioral Science (3 cr.)
x							MAT-140 Technical Mathematics
	x	x		x	x		MAT-150 College Mathematics
x	x	x	x	x			MAT-210 Calculus I
x		x	x				MAT-220 Calculus II
x			x				MAT-230 Calculus III
x			x				MAT-310 Differential Equations
x			x				MAT-320 Advanced Calculus
x		x	x				MAT-420 Linear Algebra
			x				MAT-430 Fns. of a Complex Variable
		x	x				MAT-440 Numerical Analysis
x			x				MAT-450 Probability & Statistics
x	x	x	x	x		x	PHY-140 Physics I
x	x	x	x	x		x	PHY-150 Physics II
x	x	x	x	x			PHY-160 Physics III
x	x	x	x				PHY-210 Modern Physics
x	x	x	x				PHY-212 Science of Matter or Chemistry
x	x	x	x	x	x		CS-160 Digital Systems
x	x	x	x	x	x		CS-170 Computer Programming I
x	x	x	x	x		x	CS-210 Fortran
		x	x	x			CS-220 Business Oriented Language (COBOL)
		x	x				CS-230 Structured Programming
x	x	x	x			x	CS-240 Digital Design
x		x	x	x			CS-255 Computer Programming II
		x	x				CS-310 Programming Techniques
		x	x	x			CS-320 Organization of Programming Languages
		x	x	x			CS-340 Introduction to File Processing
x	x	x				x	CS-350 Computer Circuit Design
x	x	x					CS-360 Computer Architecture
		x					CS-410 System Design & Analysis
		x	x				CS-420 Operating System Concepts
							CS-430 Simulation & Modeling
							CS-440 Microcomputers
				x			CS-450 Data Base Management Systems Design

EE	ET	CS	MATH	SYS	BEC	AEC	
				x			CS-460 Assemblers and System Programming
				x			CS-470 Information Systems Analysis and Design
x	x	x			x		ETR-110 Networks I
x	x	x			x		ETR-120 Electronics I
x	x				x		ETR-130 Electronics Lab I (1 cr.)
x	x				x		ETR-220 Electronics II
x	x				x		ETR-230 Electronics Lab II (1 cr.)
x	x					x	ETR-250 Networks II
x	x				x		ETR-255 Electricity Laboratory (1 cr.)
x							ETR-320 Electronics III
x							ETR-430 Networks III
x							EE-410 Electromagnetic Theory
x							EE-420 Field Transmission Lines
x							EE-430 Fund. of Communication Systems
x	x						EE-440 Energy Systems
x							EE-450 Control Systems
x							EE-460 Micro-electronics
x							EE-470 Elect. Eng. Analysis/Design
	x				x		MT-220 Principles of Technology
x	x					x	MT-320 Engineering Drawing (2 cr.)
	x						MT-330 Industrial Planning
	x						MT-350 Fund. of Control System Technology
x	x						MT-380 Strength of Materials (4 cr.)
	x				x		ET-210 Instrumentation I
	x				x		ET-310 Instrumentation II
	x				x		ET-410 Electronic Technology
	x				x		ET-420 Fund. of Communication Technology
x	x	x	x	x			Electives (in credits)
				x			30 credits in Business

PROGRAM REQUIREMENTS	DEGREE CODE	DEGREE CODE
B.S. Electrical Engineering (EE)	138 credits	460
B.S. Computer Science (CS)	120 credits	463
B.S. Computer Science with a Business Systems Option	120 credits	463
B.S. Electronic Technology (ET)	120 credits	461
Basic Electronic Cert. (BEC)	30 credits	360
Advanced Electronic Cert. (AEC)	30 credits	361
Computer Science Cert. Individualized	30 credits	363
100 level are beginning courses		
200 and 300 level are intermediate courses		
400 level are advanced courses		



**NOVA
UNIVERSITY**
3301 College Avenue
Fort Lauderdale, FL 33314

**ELECTRICAL ENGINEERING
ELECTRONIC TECHNOLOGY
COMPUTER SCIENCE
MATHEMATICS**



Course Descriptions

MAT-150 College Mathematics (Precalculus)

Review of algebra, trigonometric functions, graphs of functions, logarithms, exponents, functions of the natural number, introduction of calculus, concept of limits, integrals.

MAT-220 Calculus II

Riemann sums, the definite integral, methods of integration, continuation of exponential logarithmic functions, inverse trigonometric functions, L'Hopital's rule, and improper integrals. **Prerequisite: Calculus I or Equivalent**

MAT-310 Differential Equations

Solving first order ordinary differential equations, exact, separable and linear. Applications to rates and mechanics, theory of higher order linear differential equations. Methods of undetermined coefficients and variation of parameters, application to vibrating mass and electric circuits; power series solutions. Partial differential equations: the methods of separation of variables, linear partial differential equations and their application to electronics and electrical engineering problems; solutions of initial boundary problems; Fourier series and Fourier transforms; inhomogeneous problems; introduction of numerical methods. Laplace transforms. **Prerequisite: Calculus III or Equivalent**

PHY-140 Physics I

Basic principles of mechanics including Vectors, force, equilibrium, displacement, velocity, acceleration, mass, Newton's Laws, work energy, gravitation, momentum, rotational motion, mechanics of systems of particles and rigid bodies.

Prerequisite: Calculus I

WHAT ARE REGISTRATION POLICIES?

How to Drop and Add Courses.

The first week of classes is the Drop/Add Period. After a class has met once you must receive written permission from the instructor or your counselor to add the class. The normal refund policy applies to a course dropped during the drop and add period unless another course of equal credit, with the same term beginning date, is added in its place.

The Registrar's Office must be notified in writing of the course to be dropped. This may be done by completing a change of Registration form available in the Registrar's Office or by mailing a simple written note to the Registrar's Office.

Tuition Refund Policy

The following refund policy will be computed based upon the date written notification of the drop is received by the Registrar's Office:

- 100% refund prior to the first class meeting.
 - 75% refund prior to the second class meeting, regardless of class attendance.
 - 50% refund prior to the third class meeting, regardless of class attendance.
- Fees are non-refundable.

NOVA COLLEGE OFFERS A NUMBER OF ADDITIONAL DEGREE PROGRAMS IN BOTH DAY AND EVENING FORMAT.

For Information Call: 475-7340

After the third class meeting, a student may withdraw from a course by completing a "Withdrawal Form" available in the Registrar's Office. After one half of the course is completed, instructor's or counselor's approval is required to withdraw from a course.

How to Withdraw

If you wish to withdraw from a course after the refund period is over you must submit a completed withdrawal form to the registration office within the first half of the course. Between that time and the last class meeting before the final exam, you may withdraw and obtain a "W" only with the consent of the instructor or academic counselor on the withdrawal form. You are expected to attend all classes and may be administratively withdrawn if you fail to meet attendance requirements of the instructor.

How to Take an Incomplete

With the written approval of the course instructor, you may have up to one additional term to complete the course and receive a letter grade. An incomplete form must be completed and signed by the instructor in order to receive a grade of "I". The grade of "I" remains permanently on the record if the work is not completed within the extension period.

FINANCIAL AID

Nova University participates in various governmental financial aid programs for the benefit of its students.

For information call: 475-7410