

Nova Southeastern University NSUWorks

College of Engineering and Computing Course Catalogs

NSU Course Catalogs and Course Descriptions

1981

# Bachelor Degree Programs For Students Working in Business and Industry 1981

Nova Southeastern University

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# Nova College — Corporate Division

## **BACHELOR DEGREE PROGRAMS** For Students Working In Business And Industry

## ELECTRICAL ENGINEERING COMPUTER SYSTEMS

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."

#### 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 May 1)	\$10.00		

#### WHAT CREDIT CARDS CAN I USE?

Master Charge VISA Hollywood Buy-O-Matic

#### FOR INFORMATION CALL:

BROWARD COUNTY: 475-7650

DADE COUNTY: 940-6447, 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

THIS IS NOT	Please mail to:	Dr. Anna Mae Walsh Burke, Director Nova College: The Corporate Division Nova University 3301 College Avenue Ft. Lauderdale, FL 33314 nation on Corporate Division Programs:	Electrical Engineering Computer Science Computer Systems Other		
	NAME	action on corporate Division Programs.			
	ADDRESS		EMPLOYER		
	(City)	(State) (Zip)			

#### COURSES BEGINNING MAY 11, 1981

COURSE NO.	SECTION	DESCRIPTION	DAY	TIME	LOCATION
ETR 255	A	Electricity Lab	M	6-10:30pm	P 3rd Fl
ETR 335	A	Electronics Lab I	M	6-10:30pm	P 3rd Fl
CS 170	A	Computer Programming I	T	6-10:30pm	P 208
CS 305	A	Computer Programming II	T	6-10:30pm	P 209
MAT 305	A	Calculus III	T	6-10:30pm	P 107
CS 170	B	Computer Programming I	W	6-10:30pm	P 208
CS 360	A	Computer Architecture	W	6-10:30pm	P 209
MAT 210	A	Calculus I	W	6-10:30pm	P 106
CS 210	A	Fortran	Th	6-10:30pm	P 208
CS 320	A	Organization of Progrmg. Languages	Th	6-10:30pm	P 209
EE 440	A	Energy Systems	Th	6-10:30pm	P 107
CS 160	A	Fundamentals of Logic Design	S	8:30am - 1:00pm	P 208
ETR 310	A	Networks II	S	8:30am - 1:00pm	TBA

#### COURSE DESCRIPTIONS

#### CS-160 Fundamentals of Logic Design (Formerly called Digital Systems)

An introduction to elementary digital logic circuits, Boolean algebra, Karnaugh maps, digital counters, other basic circuit elements. Number set modules, binary octal and hexadecimal number systems are investigated and related to digital computing structures.

#### **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-210 Fortran

Introduction to the language Fortran with reference to the latest standards, special techniques for programming in Fortran.

#### CS-305 Computer Programming II

A continuation of CS-170 which involves higher-level languages and more complex problems including random and sequential file structures. **Prerequisite: Knowledge of Basic and Fortan.** 

#### CS-320 Organization of Programming Languages

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Development of an understanding of the organization of programming languages, introduction of formal study of programming language specification and analysis, continuation of development of programming skills. Prerequisite: Knowledge of at least two higher level languages such as Fortran, Pascal, Cobol.

#### CS-360 Computer Architecture

The analysis and design of computer systems; the interrelation of software and hardware design in the final computer system, interrelation between operating system and the architecture of computer systems concurrent processes and resource allocation. **Prerequisite: Computer Circuit 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, Physics III and Electronics I.** 

#### ETR-255 Electricity Laboratory

Basic lab to complement Networks theory courses.

#### ETR-310 Networks II

A.C. circuit theory, capacitance, inductance, course free RL & RC circuits, application of unit step forcing function, RLC circuits, sinusoidal analysis, phasor sinusoidal steady state response. Polyphase circuits, average power and RMS power. **Prerequisite: Calculus I, Networks I.** 

#### ETR-335 Electronics Lab I-(1 cr.)

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

#### MAT-210 Calculus I

Functions, limits, derivatives of algebraic functions, introduction to derivatives of trigonometric functions, logarithmic functions, application of derivatives to physics problems, related rates and maximum/minimum problems, definite and indefinite integrals with applications.

#### MAT-305 Calculus III

Sequences and series, Taylor series, Vector analysis functions of several variables, partial derivatives, total differential chain rule; multiple integral and application functions of a complex variable. **Prerequisite: Cal**culus II or Equivalent

### SUMMARY OF PROGRAM REQUIREMENTS

#### EE CS MATH SYS

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

	-				
x	x	х	x		Communications (3 cr.)
x	x	x	x		Communications (3 cr.)
x	x	x	х		Social Science (3 cr.)
x	x	x	x		Social Science (3 cr.)
x	x	x	x		Humanities (3 cr.)
x	х	х	х		Humanities (3 cr.)
x	x	x	x		Behavioral Science (3 cr.)
x	x	x	x		Behavioral Science (3 cr.)
	x		х	MAT-150	College Mathematics
x	x	x	x	MAT-210	Calculus I
x	x	x		MAT-220	Calculus II
x		x		MAT-305	Calculus III
x		x		MAT-310	Differential Equations
x		x		MAT-320	Advanced Calculus
х	x	x		MAT-420	Linear Algebra
		x		MAT-430	Fns. of a Complex Variable
x	x	x		MAT-440	Numerical Analysis
		x		MAT-450	Probability & Statistics
x	х	x		PHY-140	Physics I
x	x	x		PHY-150	Physics II
x	x	x		PHY-160	Physics III
x	x	x		PHY-212	Science of Matter or Chemistry
x		x		PHY-310	Modern Physics
			x		Physical or/Life Science (9 cr.)
x	x	x	x	CS-160	Fundamentals of Logic Design
x	x	x	x	CS-170	Computer Programming I
x	x	x	x	CS-210	Fortran
	x	x	x	CS-220	Business Oriented Language (COBOL)
x	х	x		CS-240	Digital Design
x	x	x	x	CS-305	Computer Programming II
	x	x	x	CS-310	Programming Techniques
	x	x	x	CS-320	Organization of Programming Languages
	x	x	x	CS-330	Structured Programming (PASCAL)
	x	x	x	CS-340	Introduction to File Processing
x	x			CS-350	Computer Circuit Design
x	x			CS-360	Computer Architecture
x	x			CS-410	System Design & Analysis
	x		х	CS-420	Operating System Concepts
				CS-430	Simulation & Modeling
				CS-440	Microcomputers
	x		х	CS-450	Data Base Management Systems Design
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x	x	CS-460	Assemblers and System Programming
	х	CS-470	Information Systems Analysis and Design
хх		ETR-210	Networks I
x		ETR-255	Electricity Laboratory (1 cr.)
x		ETR-310	Networks II
хх		ETR-330	Electronics I
x		ETR-335	Electronics Lab I (1 cr.)
х		ETR-340	Electronics II
х		ETR-345	Electronics Lab II (1 cr.)
х		ETR-420	Electronics III
х		ETR-430	Networks III
х		EE-410	Electromagnetic Theory
x		<b>EE-420</b>	Field Transmission Lines
X		EE-430	Fund. of Communication Systems
х		EE-440	Energy Systems
x		EE-450	Control Systems
х		EE-460	Micro-electronics
х		EE-470	Elect. Eng. Analysis/Design
x		MT-320	Engineering Drawing (3 cr.)
9 12 2	24 12		Electives (in credits)
	x		30 credits in Business or other approved discipline

PROGRAM REQUIREMENTS		DEGREE CODE
B.S. Electrical Engineering (EE)	138 credits	460
B.S. Computer Science (CS)	120 credits	463
B.S. Computer Systems (SYS)	120 credits	464
B.S. Mathematics	120 credits	462
100 level are beginning courses		
200 and 300 level are intermediate		

courses

400 level are advanced courses

ET LAUDERDALE FLORIDA PERMIT NO. 886 **DIA JOATZOG .2.U** NON-PROFIT ORGANIZATION

#### 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 FOR-MAT

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.

ort Lauderdale, FL 33314 college Avenue LECTRICAL ENGINEERING

COMPUTER SCIENCE

MATHEMATICS

#### 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