1982

Bachelor Degree Programs For Students Working in Business and Industry March 1982

Nova Southeastern University

NOVA UNIVERSITY
CENTER FOR SCIENCE AND ENGINEERING

BACHELOR DEGREE PROGRAMS
For Students Working In Business And Industry

● ELECTRICAL ENGINEERING ● COMPUTER SCIENCE

● COMPUTER SYSTEMS 8203

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

WHAT IS THE PROGRAM 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.

WHAT ARE THE ADMISSION REQUIREMENTS?

Students must be high school graduates (or equivalent), and take the Nova College Placement Test, which will evaluate ability to read, write, and perform mathematical calculations on the level needed for college work. 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 $20.00 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):	$20.00
Registration fee:	$10.00
Tuition (per credit)	$85.00
Late registration fee (after Feb. 26)	$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 and Schools.
Nova University accepts students of any race, color, and national or ethnic origin.

8203

THIS IS NOT A REGISTRATION FORM

Please mail to: Center for Science and Engineering
Nova University
3301 College Avenue
Ft. Lauderdale, FL 33314

_____ Electrical Engineering
_____ Computer Science
_____ Computer Systems
_____ Computer Systems/Technical Communication

Please send information on Center for Science and Engineering Programs

NAME_____ HOME PHONE_____

ADDRESS_____ EMPLOYER_____

_____ BUSINESS PHONE_____

(City) (State) (Zip)

COURSES BEGINNING MARCH 8, 1982

COURSE NO.	DESCRIPTION	DAY	SECTION	TIME	LOCATION
CS-360	Computer Architecture	M	A	6:00pm-10:30pm	P107
CS-330	Structured Programming (Pascal) Full	M	A	6:00pm-10:30pm	P209
CS-150	Introduction to Computer Organization	M	A	6:00pm-10:30pm	P208
ETR-330	Electronics I	M	A	6:00pm-10:30pm	P106
CS-170	Computer Programming I	T	A	6:00pm-10:30pm	P208
~~CS-310~~	~~Programming Techniques~~ Cancel	T	A	6:00pm-10:30pm	P209
ETR-430	Networks III	T	A	6:00pm-10:30pm	P146
CS-335	Assemblers and Assembly Language Programming	W	A	6:00pm-10:30pm	P208
MAT-210	Calculus I	W	A	6:00pm-10:30pm	P209
MAT-305	Calculus III	W	A	6:00pm-10:30pm	P106
PHY-160	Physics III	W	A	6:00pm-10:30pm	P107
CS-220	COBOL—Business Oriented Language Full	Th	A	6:00pm-10:30pm	P208
CS-240	Digital Design	Th	A	6:00pm-10:30pm	P209
~~EE-430~~	~~Fundamentals of Communication Systems~~ Cancel	Th	A	6:00pm-10:30pm	P213
CS-420	Operating System Concepts	S	A	8:30am-1:30pm	P208

COURSE DESCRIPTIONS

CS-150 Introduction to Computer Organization
An introduction to principles of digital computer operation and organization, data representation, Central Processing Unit, input/output devices, and number systems.

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.

CS-240 Digital Design
Application of the principles of logic design in digital systems. Arithmetic logic units, parallel and serial interfaces, information transfer in a digital system, major hardware components and peripheral devices, digital computers. **Prerequisite: Fundamentals of Logic Design or Equivalent.**

CS-310 Programming Techniques
Advanced programming techniques including algorithm analysis, structured programming techniques, program design, large program development and management. **Prerequisite: Basic and Fortran.**

CS-330 Structured Programming (Pascal)
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 extensive programming experience required.**

CS-335 Assemblers and Assembly Language Programming
Techniques of assembly language programming, operation of assemblers, concepts of assembly macros. Assembly language programs will be written as part of this course. **Prerequisite: FORTRAN.**

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.**

CS-420 Operating System Concepts
Methods in the analysis and design of large-scale systems, including concepts of processes, linear address space, resource allocation, protection and advanced topics in operational systems implementation. **Prerequisite: Computer Programming II or Equivalent.**

CS-430 Simulation and Modeling
Constructon and use of complex models on digital computers; structure of simulation language, verification and validation of models, statistical analysis of results. Students will design and run a number of simulations. **Prerequisite: Knowledge of Basic and two higher level languages.**

SUMMARY OF PROGRAM REQUIREMENTS

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

EE	CS	MATH	SYS	SYS/TC		
x	x	x	x	x		Communications (3 cr.) (Lan. 111)
x	x	x	x	x		Communications (3 cr.) (Lan. 112)
x	x	x	x	x		Social Science
x	x	x	x	x		Social Science
x	x	x	x	x		Behavioral Science
x	x	x	x	x		Behavioral Science
x	x	x	x	x		Humanities (3 cr.)
x	x	x	x	x		Humanities (3 cr.)
	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-305	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	x			MAT-440	Numerical Analysis
		x			MAT-450	Probability & Statistics
x	x	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	x		Physical or/Life Science (9 cr.)
			x	x	CS-150	Introduction To Computer Organization
x	x	x			CS-160	Fundamentals of Logic Design
x	x	x	x	x	CS-170	Computer Programming I
x	x	x	x	x	CS-210	Fortran
	x	x	x	x	CS-220	Business Oriented Language (COBOL)
x	x	x		x	CS-240	Digital Design
x	x	x	x	x	CS-305	Computer Programming II
	x	x	x	x	CS-310	Programming Techniques
	x	x	x	x	CS-320	Organization of Programming Languages
	x	x	x	x	CS-330	Structured Programming (PASCAL)
	x	x	x	x	CS-340	Introduction to File Processing
x	x			x	CS-350	Computer Circuit Design
x	x			x	CS-360	Computer Architecture
x	x				CS-410	System Design & Analysis
	x		x	x	CS-420	Operating System Concepts
					CS-430	Simulation & Modeling
					CS-440	Microcomputers
	x		x	x	CS-450	Data Base Management Systems Design

12 credits

EE	CS	MATH	SYS	SYS/TC		
	x		x	x	CS-460	Assemblers and System Programming
			x	x	CS-470	Information Systems Analysis and Design
x	x			x	ETR-210	Networks I
x					ETR-255	Electricity Laboratory (1 cr.)
x					ETR-310	Networks II
x	x				ETR-330	Electronics I
x					ETR-335	Electronics Lab I (1 cr.)
x					ETR-340	Electronics II
x					ETR-345	Electronics Lab II (1 cr.)
x					ETR-420	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					EE-440	Energy Systems
x					EE-450	Control Systems
x					EE-460	Micro-electronics
x					EE-470	Elect. Eng. Analysis/Design
x				x	TEC-220	Engineering Drawing
				x	TEC-320	Technical Communication
				x	TEC-330	Technical Writing
				x	TEC-370	Technical Documentation I
				x	TEC-380	Technical Documentation II
				x	TEC-470	Seminar in Technical Communication
9	15	24	12	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. Computer Systems/Technical Communications (SYS/TC)	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

NOVA UNIVERSITY
3301 College Avenue
Fort Lauderdale, FL 33314

ELECTRICAL ENGINEERING
COMPUTER SCIENCE
COMPUTER SYSTEMS
MATHEMATICS

EE-430 Fundamentals of Communication Systems
Review of Fourier analysis, various methods for modulating and demodulating signals, calculating effects of noise on single transmission, sampling theory and digital data transmission, transmission lines and microwaves; mathematical description of noise, fundamentals of information theory as applied to communications. **Prerequisite: Networks II, Electronics III.**

ETR-330 Electronics I
Physical theory and analysis of semi-conductor properties, circuits containing non-linear elements, semiconductor diodes, zener diodes, conduction in semiconductors, transistor characteristics, large system signal analysis, small models, single-stage amplifiers. **Prerequisite: Networks I or Equivalent.**

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: Calculus II.**

PHY-160 Physics III
Thermodynamics, entropy, wave motion & optics, temperature, heat and kinetic theory; reflection and refraction of light, interference and defraction polarization radiation. **Prerequisite or Co-requisite: Calculus I.**

PLEASE NOTE: CS-335 IS NOW REQUIRED OF ALL COMPUTER SCIENCE AND COMPUTER SYSTEM MAJORS ALTHOUGH IT IS NOT LISTED IN THE CHART ABOVE. STUDENTS WHO HAD PLANNED TO TAKE CS-460 SHOULD TAKE CS-335.

The Center also offers a Master of Science degree with a major in Computer Science.

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.

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.

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

For Information Call: 475-7340

FINANCIAL AID

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

For information call: 475-7410