1982

Bachelor Degree Programs For Student Working in Business and Industry August 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 8208

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)	$110.00
Late registration fee (after Aug. 23)	$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.

8208

COURSES BEGINNING AUGUST 30, 1982

COURSE NO.	TITLE	DAY	SECTION	TIME	LOCATION
CS-150	Intro. to Computer Organization	M	A	6:00-10:30 pm	P106
~~CS-340~~	~~Data Structures~~ Cancel	M	A	6:00-10:30 pm	P146
PHY-212	Science of Matter	M	A	6:00-10:30 pm	P208
CS-170	Computer Programming I	T	A	6:00-10:30 pm	P208
CS-240	Digital Design	T	A	6:00-10:30 pm	P146
CS-360	~~Computer Architecture~~ Cancel	T	A	6:00-10:30 pm	P150
CS-200	Computer Programming II	W	A	6:00-10:30 pm	P208
CS-335	Assemblers and Assembly Language Programming	W	A	6:00-10:30 pm	P106
MAT-150	Precalculus	W	A	6:00-10:30 pm	P209
MAT-305	Calculus III Cancel	W	A	6:00-10:30 pm	P213
CS-220	Business Oriented Language (Cobol)	Th	A	6:00-10:30 pm	P208
CS-320	Organization of Programming Languages	Th	A	6:00-10:30 pm	P209
EE-310	Networks II	Th	A	6:00-10:30 pm	P106
TEC-330	Technical Writing	Th	A	6:00-10:30 pm	P146
CS-420	Operating Systems	S	A	8:30 am-1:00 pm	P208
EE-430	Fundamentals of Communication Systems	S	A	8:30 am-1:00 pm	P106

COURSES BEGINNING NOVEMBER 1, 1982

COURSE NO.	TITLE	DAY	SECTION	TIME
CS-160	Fundamentals of Logic Design	M	A	6:00-10:30 pm
EE-255	Electricity Laboratory (1 cr.)	M	A	6:00-10:30 pm
EE-335	Electronics Laboratory I (1 cr.)	M	A	6:00-10:30 pm
EE-345	Electronics Laboratory II (1 cr.)	M	A	6:00-10:30 pm
MAT-440	Numerical Analysis	M	A	6:00-10:30 pm
CS-170	Computer Programming I	T	A	6:00-10:30 pm
CS-480	Introduction to Compilers and Interpreters	T	A	6:00-10:30 pm
EE-440	Energy Systems	T	A	6:00-10:30 pm
CS-200	Computer Programming II	W	A	6:00-10:30 pm
CS-330	Structured Programming (Pascal)	W	A	6:00-10:30 pm
CS-410	System Design and Analysis	W	A	6:00-10:30 pm
EE-330	Electronics I	W	A	6:00-10:30 pm
MAT-210	Calculus I	W	A	6:00-10:30 pm
CS-210	Fortran	Th	A	6:00-10:30 pm
CS-350	Computer Circuit Design	Th	A	6:00-10:30 pm
PHY-160	Physics III	Th	A	6:00-10:30 pm
CS-450	Data Base Management Systems Design	S	A	8:30 am-1:00 pm

Course Descriptions

CS-150 Introduction to Computer Organization
An Introduction to principles of digital computer operation and organization, data representation, the central processing unit, memory, input/output devices, number systems, logic systems. **Prerequisite: demonstrated competency equivalent to MAT 102.**

CS-170 Computer Programming I
An introduction to good programming techniques including flowcharting, 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. **Prerequisite: demonstrated competency equivalent to MAT 102.**

CS-200 Computer Programming II
Continuation of Computer Programming I including introduction to random and sequential files, program design, modular design, structured programming, large programming design, documentation. **Prerequisite: Computer Programming I.**

CS-220 Business Oriented Language (COBOL)
A study of the COBOL programming language with emphasis on business applications. Topics covered will include program structure and breakdown, report generation and file handling. **Prerequisite: Computer Programming II.**

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.**

CS-320 Organization of Programming Languages
Development of an understanding of the organization of programming languages, introduction to formal study of programming language specification and analysis, comparison of two or more high level modern programming languages. **Prerequisite: FORTRAN, PASCAL, Data Structures.**

CS-335 Assemblers and Assembly Language Programming
A detailed analysis of the operation of assemblers. Assembler features, assembly language programming, macro facilities, Assembly language programs will be written as part of this course. **Prerequisite: FORTRAN.**

CS-340 Data Structures (formerly Introduction to File Processing)
An introduction to the concepts and techniques of structuring data on bulk storage devices; introduction to data structures and file processing including arrays, records, strings, lists, trees, stacks, queues, manipulation and limitations of files. **Prerequisite: Computer Programming II, PASCAL.**

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 the operating system and the architecture of computer systems, concurrent processes and resource allocation. **Prerequisite: Computer Circuit Design. Suggested prerequisite: Assemblers and Assembly Language Programming.**

CS-420 Operating System Concepts
Methods in the analysis and design of large scale systems, including concepts of semaphores, processes, linear address space, resource allocation, protection and basic topics in operating system development. **Prerequisite: Data Structures, Systems Programming.**

EE-310 Networks II
A.C. circuit theory, capacitance, inductance, source 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 II, Networks I.**

SUMMARY OF PROGRAM REQUIREMENTS

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 or Tec. 330)
x	x	x	x	x		Social Science/Behavioral Science (12 cr.)
x	x	x	x	x		Humanities (6 cr.)
	x		x	x	MAT-150	Precalculus
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			MAT-320	Advanced Calculus
a	a				MAT-360	Matrices & Statistics
a	a	x			MAT-420	Linear Algebra
		x			MAT-430	Fns. of a Complex Variable
x	x	x			MAT-440	Numerical Analysis
a	a	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-200	Computer Programming II
x	x	x	x	x	CS-210	Fortran
	x	x	x	x	CS-220	Business Oriented Language (COBOL)
x	x	x			CS-240	Digital Design
	x	x	x	x	CS-320	Organization of Programming Languages
	x	x	x	x	CS-330	Structured Programming (PASCAL)
	x	x	x	x	CS-335	Assemblers & Assembly Language Programming
	x	x	x	x	CS-340	Data Structures
x	x				CS-350	Computer Circuit Design
x	x				CS-360	Computer Architecture
	x	x	x	x	CS-370	Software Design
					CS-401	Organization of the Computer Environment
x	x				CS-410	System Design & Analysis
	b		a		CS-420	Operating System Concepts
					CS-430	Simulation & Modeling
					CS-440	Microcomputers
	b		x		CS-450	Data Base Management Systems Design
	x		x	x	CS-460	System Programming
			a		CS-470	Information Systems Analysis and Design

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

EE	CS	MATH	SYS	SYS/TC		
	b		a		CS-480	Introduction to Compilers & Interpreters
					CS-485	Theory of Computation
					CS-490	Directed Project in Computer Science
x	x				EE-210	Networks I
x					EE-255	Electricity Laboratory (1 cr.)
x					EE-310	Networks II
x	x				EE-330	Electronics I
x					EE-335	Electronics Lab I (1 cr.)
x					EE-340	Electronics II
x					EE-345	Electronics Lab II (1 cr.)
x					EE-400	Electronics III
x					EE-405	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. Design
x				x	ES-220	Engineering Drawing
x					ES-310	Engineering Applications of Materials
					ES-320	Industrial Planning
					ES-330	Statics
					ES-340	Dynamics
					ES-390	Thermodynamics
				x	TEC-320	Technical Communication
				x	TEC-330	Technical Writing
				x	TEC-350	Production of Technical Communication Materials
				x	TEC-370	Technical Documentation I
				x	TEC-380	Technical Documentation II
				x	TEC-450	Legal Aspects of Technical Communication
				x	TEC-460	Technical Communication Project Management
				x	TEC-470	Seminar in Technical Communication
9	12	15	12	12		Electives (in credits)
			x			30 credits in Approved Discipline
		6		9		Electives in CS and EE

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

a = Choose 1 "a" Course b = Choose 2 "b" 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 transmissions, sampling theory and digital data transmission, design of various types of communication systems, transmission lines and microwaves; mathematical description of noise, fundamentals of information theory as applied to communications. **Prerequisite: Networks III, Electronics II.**

MAT-150 Precalculus (Formerly called College Mathematics)
Review of algebra trigonometric functions, graphs of functions, logarithms exponents, functions of the natural number. Introduction of calculus, concept of limits, integrals.

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-212 Science of Matter
Introductory course in the science of materials, review of atomic theory, atomic bonding and periodic table, chemical equations, states of matter, structure of crystals, nature of crystal imperfections and atom movements, metallic and ceramic materials and their properties, multiphase materials, equilibrium relationships. **Prerequisite: Physics I, II, III.**

TEC-330 Technical Writing
Basic techniques of technical writing, techniques for writing reports, description of processes, instructions, proposal and progress reports and oral presentations. **Prerequisite: Lan 311 Business Communication or demonstrated competency on Nova College examination.**

SEE CATALOG FOR NOVEMBER COURSE DESCRIPTIONS

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 program office 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

How to Withdraw

After the third class meeting, a student may withdraw from a course by completing a "Withdrawal Form" available in the Registrar's Office. This form must be approved by the instructor and academic office. It is the student's responsibility to return the completed form to the Registrar's Office.

LAST DAY TO WITHDRAW: Oct. 11

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