1983

Center for Science and Engineering Schedule of Classes March-April 1983

Nova University

8303

CENTER FOR SCIENCE AND ENGINEERING

Schedule of Classes

March-April Schedule

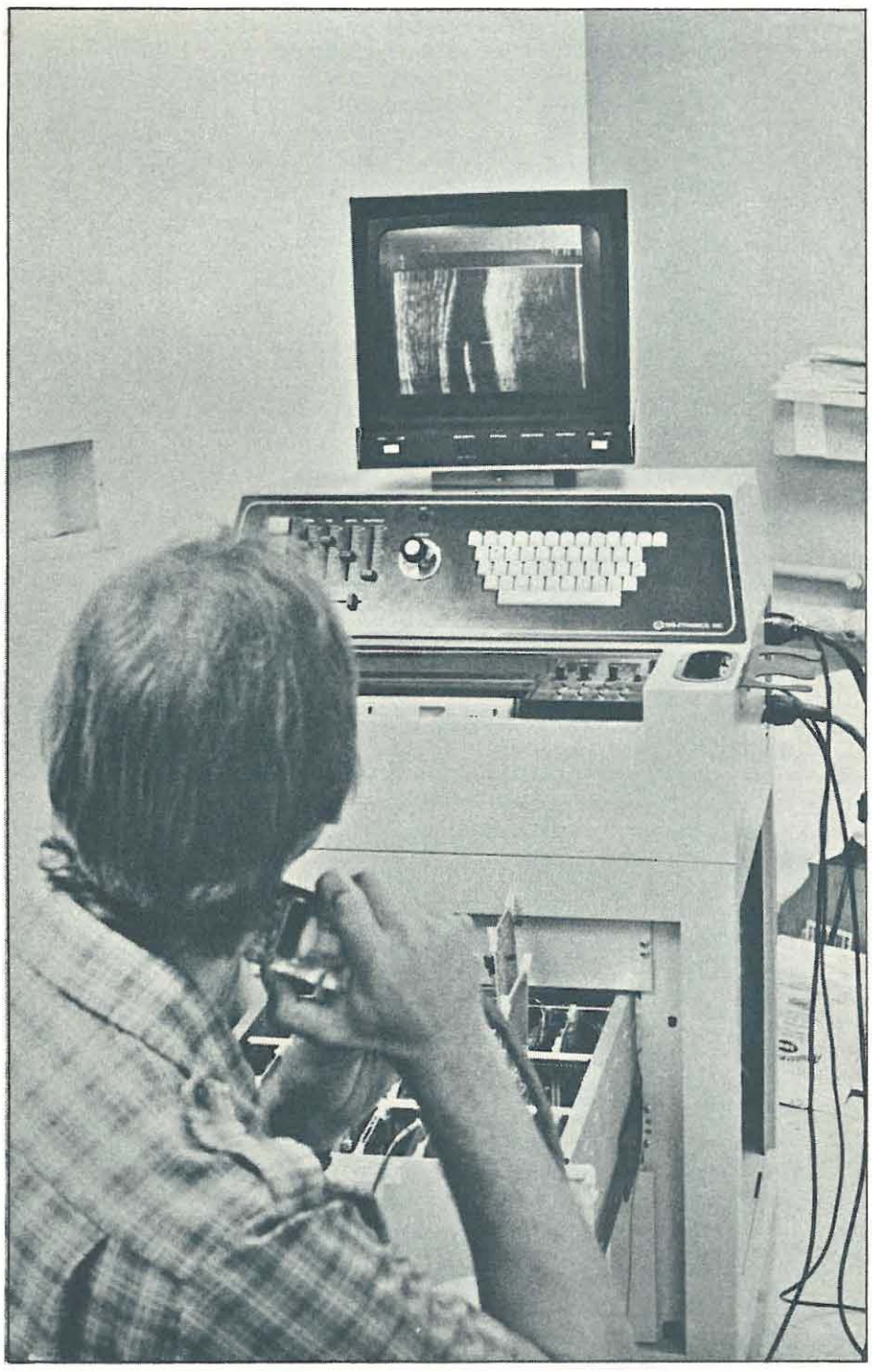
Bachelor Degree Programs
Electrical Engineering
Computer Engineering
Computer Science
Computer Systems
Computer Information Systems
Mathematics
Computer Systems/Technical Communications

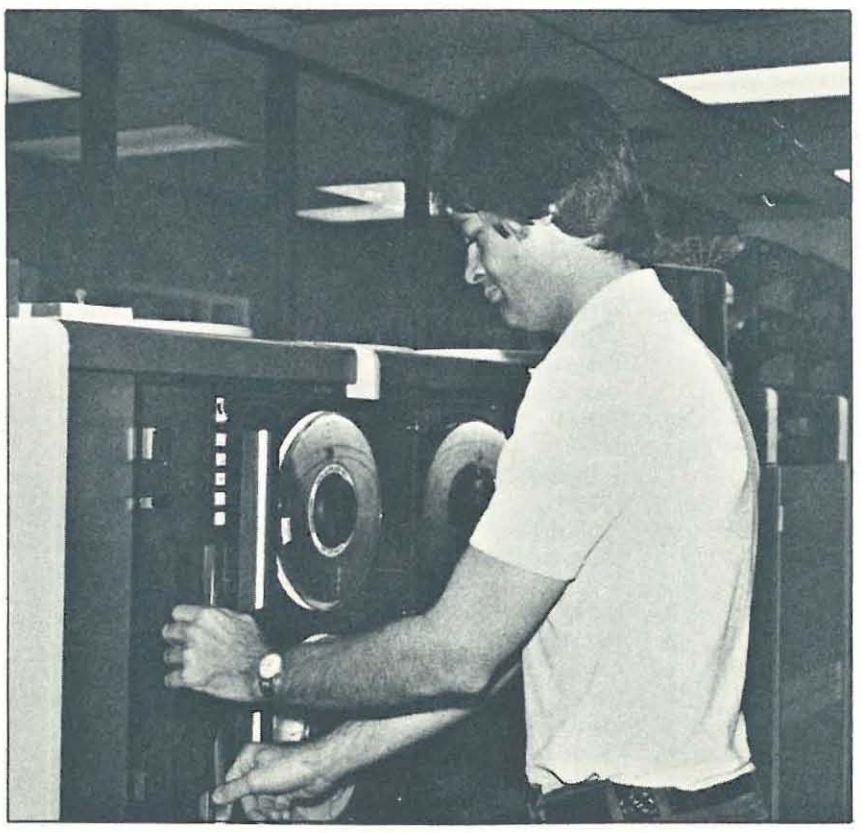
Master's Degree Programs
Computer Science
Engineering Management
Computer Management

Evening and Saturday Classes

Nova University

Nova University
3301 College Avenue
Fort Lauderdale, Florida 33314





Registration Policies

Drop/Add Procedures

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.

Policy Regarding Incomplete Grades

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".

Withdrawal Policy

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.

Financial Aid

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

For information call: 475-7410.

Last Day To Withdraw:
9-week courses / May 6, 1983
12-week courses / June 3, 1983

Undergraduate Courses

8303

Beginning March 21, 1983 (9 Weeks)

Course No.	Sec	Course Title	Day	Dates	Time	Loc
PHY-140	A	Physics I	M	3/21-5/16	6:00-10:30 pm	P-106
CS-160	A	Fundamentals of Logic Design	M	3/21-5/16	6:00-10:30 pm	P-107
CS-200	A	Computer Programming II	M	3/21-5/16	6:00-10:30 pm	P-208
CS-420	A	Operating Systems Concepts	M	3/21-5/16	6:00-10:30 pm	P-209
~~EE-340~~	~~A~~	~~Electronics II~~	~~M~~	~~3/21-5/16~~	~~6:00-10:30 pm~~	~~P-142~~ CANCEL
MAT-210	A	Calculus I	T	3/22-5/17	6:00-10:30 pm	P-106
MAT-305	A	Calculus III	T	3/22-5/17	6:00-10:30 pm	P-105
~~MAT-420~~	~~A~~	~~Linear Algebra~~	~~T~~	~~3/22-5/17~~	~~6:00-10:30 pm~~	~~P-142~~ CANCEL
CS-170	A	Computer Programming I	T	3/22-5/17	6:00-10:30 pm	P-208
CS-450	A	Data Base Management Systems Design	T	3/22-5/17	6:00-10:30 pm	P-209
CS-320	A	Organization of Programming Languages	W	3/23-5/18	6:00-10:30 pm	P-208
CS-330	A	Pascal	W	3/23-5/18	6:00-10:30 pm	P-209
EE-420	A	Field Transmission Lines	W	3/23-5/18	6:00-10:30 pm	P-142
~~TEC-370~~	~~A~~	~~Technical Documentation I~~	~~W~~	~~3/23-5/18~~	~~6:00-10:30 pm~~	~~P-106~~ Cancel
EE-310	A	Networks II	W	3/23-5/18	6:00-10:30 pm	P-107
CS-210	A	Fortran	Th	3/24-5/19	6:00-10:30 pm	P-208
CS-315	A	Advanced Cobol	Th	3/24-5/19	6:00-10:30 pm	P-209
CS-350	A	Computer Circuit Design	Th	3/24-5/19	6:00-10:30 pm	P-106
CS-410	A	System Design and Analysis	Th	3/24-5/19	6:00-10:30 pm	P-107

8305

Beginning May 23, 1983 (9 Week Courses) Tentative Schedule

Course No.	Sec	Course Title
CS-150	A	Introduction to Computer Organization
CS-170	A	Programming I
CS-200	A	Programming II
CS-220	A	Cobol
CS-335	A	Assemblers and Assembly Language Programming
CS-405	A	Computer Architecture
CS-370	A	Software Design
CS-480	A	Introduction to Compilers & Interpreters
EE-405	A	Networks III
EE-460	A	Micro-electronics
EE-470	A	Electrical Engineering Design
MAT-150	A	Precalculus
MAT-220	A	Calculus II
MAT-440	A	Numerical Analysis
PHY-150	A	Physics II

Courses for Non-Technical Majors 8303

Beginning March 7, 1983 (9 Week Courses)

Course No.	Sec	Course Title	Day	Dates	Time	Loc
CS-113	M	Business Applications of Micro-computers	M	3/7-5/2	6:00-10:00 pm	P-213
MAT-102	M	Introductory Algebra	T	3/8-5/3	6:00-10:00 pm	P-239
MAT-105	M	College Algebra	T	3/8-5/3	6:00-10:00 pm	P-214
CS-111	M	Computer Literacy	W	3/9-5/4	6:00-10:00 pm	P-213

Graduate Courses

8303

Beginning March 21, 1983 (9 Weeks)

Course No.	Sec	Course Title	Day	Dates	Time	Loc
CS-520	A	Operating Systems Concepts	M	3/21-5/16	6:00-10:30 pm	P-209
CS-550	A	Data Base Management Systems Design	T	3/22-5/17	6:00-10:30 pm	P-209

8304

Beginning April 5, 1983 (12 Weeks)

Course No.	Sec	Course Title	Day	Dates	Time	Loc
~~CS-631~~	~~A~~	~~Programming Languages~~	~~M~~	~~4/4-6/22~~	~~6:00-10:00 pm~~	~~P-143~~ Cancel
CS-633	A	Language Theory and Automata	T	4/5-6/21	6:00-10:00 pm	P-107
CS-~~571~~ 671	A	Management of Technical Projects	W	~~4/6-6/22~~	6:00-10:00 pm	P-~~147~~ 142
EGR-~~571~~ 671	A	Management of Technical Projects	W	~~4/6-6/22~~	6:00-10:00 pm	P-~~147~~ 142
CS-637	A	Compiler Design Theory	Th	4/7-6/23	6:00-10:00 pm	P-147

130 - per credit
15 - App
15 - Reg
15 - Late

Summary of Program Requirements

EE	CE	CS	MATH	SYS	CIS	SYS/TC	All courses are 3 semester hours of credit unless otherwise indicated.	
x	x	x	x	x	x	x		Communications (3 cr.) (LAN-111)
x	x	x	x	x	x	x		Communications (3 cr.) (LAN-112 or TEC-330)
x	x	x	x	x	x	x		Social Science/Behavioral Science (12 cr.)
x	x	x	x	x	x	x		Humanities (6 cr.)
		x		x		x	MAT-150	Precalculus
x	x	x	x	c		c	MAT-210	Calculus I
x	x	x	x				MAT-220	Calculus II
x	x		x				MAT-305	Calculus III
x	x		x				MAT-310	Differential Equations
				c	x	c	MAT-315	Introduction to Statistics
			x				MAT-320	Advanced Calculus
a	a	a					MAT-360	Matrices & Statistics
a	a	a	x				MAT-420	Linear Algebra
			x				MAT-430	Functions of a Complex Variable
x	x	x	x				MAT-440	Numerical Analysis
a	a	a	x				MAT-450	Probability & Statistics
x	x	x	x				PHY-140	Physics I
x	x	x	x				PHY-150	Physics II
x	x	x	x				PHY-160	Physics III
x	x	x	x				PHY-212	Science of Matter/or a chemistry course
x			x				PHY-310	Modern Physics
				x	x	x		Physical/or Life Science (9 cr.)
					x		CS-112	Introduction to Data Processing
				x	x	x	CS-150	Introduction to Computer Organization
x	x	x	x				CS-160	Fundamentals of Logic Design
x	x	x	x	x	x	x	CS-170	Computer Programming I
x	x	x	x	x	x	x	CS-200	Computer Programming II
c	x	x	x	x		x	CS-210	Fortran
		x	x	x	x	x	CS-220	Business Oriented Language (Cobol)
x	x	x	x				CS-240	Digital Design
					x		CS-315	Advanced Cobol
		x	x	x		x	CS-320	Organization of Programming Languages
c	x	x	x	x	x	x	CS-330	Structured Programming (Pascal)
	x	x	x	x		x	CS-335	Assemblers & Assembly Language Programming
	x	x	x	x	x	x	CS-340	Data Structures
					x		CS-345	Distributed Data Processing
x	x	x					CS-350	Computer Circuit Design
					x		CS-365	Methods of Systems Analysis
	x	x	x	x		x	CS-370	Software Design
					x		CS-401	Organization of the Computer Environment
x	x	x					CS-405	Computer Architecture
x	x	x					CS-410	System Design & Analysis
	b	b		a			CS-420	Operating System Concepts
							CS-430	Simulation & Modeling
	b						CS-440	Microcomputers
		b		x	x		CS-450	Data Base Management Systems Design
	b	x		x		x	CS-460	System Programming
				a	x		CS-470	Information Systems Analysis and Design
					x		CS-475	EDP Audit and Control
	b	b		a			CS-480	Introduction to Compilers & Interpreters
							CS-485	Theory of Computation
					x		CS-490	Directed Project in Computer Science
x	x	x					EE-210	Networks I
x	x						EE-255	Electricity Laboratory (1 cr.)
x	x						EE-310	Networks II
x	x	x					EE-330	Electronics I
x	x						EE-335	Electronics Lab I (1 cr.)
x	x						EE-340	Electronics II
x	x						EE-345	Electronics Lab II (1 cr.)
x	b						EE-400	Electronics III
x	b						EE-405	Networks III
x	b						EE-410	Electromagnetic Theory
x	b						EE-420	Field Transmission Lines
x	b						EE-430	Fundamentals of Communication Systems
x	b						EE-440	Energy Systems
x	b						EE-450	Control Systems
x	x						EE-460	Micro-electronics
x	b						EE-470	Electrical Engineering 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 Material
						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	9	12	15	12	21	12		Electives (in credits)
				30	12			Credits in Business (or approved discipline)
			6		6	9		Electives in CS or EE

Program Requirements

		Degree Code
B.S. Electrical Engineering (EE)	138 credits	460
B.S. Computer Engineering (CE)	120 credits	465
B.S. Computer Science (CS)	120 credits	463
B.S. Mathematics (MATH)	120 credits	462
B.S. Computer Systems (SYS)	120 credits	464
B.S. Computer Information Systems (CIS)	120 credits	466
B.S. Computer Systems/Technical Communications (SYS/TC)	120 credits	464

a = Choose 1 "a' course. b = Choose 2 "b" courses. c = Choose 1 "c" course.

Bulletin Board

Summer School Dates

Registration: May 16-June 6, 1983
Classes: June13-August 13, 1983

New Graduate Programs

- Computer Management
- Engineering Management

NEW COURSE— 8 weeks / 3/7-5/2

CS-113 Business Applications of Microcomputers Theory and application of programs for microcomputers which are useful in the business environment. Accounting, data base management, and information systems management programs will be included. Computer laboratory oriented course. Prerequisite: CS-111 or familiarity with microcomputers.

New Undergraduate Programs

- Computer Information Systems
- Computer Engineering

Fee Schedule for 1983

Graduate application fee (non-refundable)	$ 15
Graduate registration fee (non-refundable)	$ 15
Graduate late registration fee	$ 15
Graduate tuition fee (per credit)	$130
Undergraduate application fee (non-refundable)	$ 20
Undergraduate registration fee (non-refundable)	$ 10
Undergraduate late registration fee	$ 10
Undergraduate tuition fee (per credit)	$110

Course Descriptions

CS-111 Computer Literacy Introduction for the non-technical person. Computer literacy, principles of computer operation, uses of computer in small businesses, schools, social service agencies, hospitals. Hands-on experience with micro-computers and specialized software. This course is for non-computer science majors.

CS-113 Business Applications of Microcomputers Theory and applications of programs for microcomputers which are useful in the business environment. Accounting, data base management, and information system management programs will be included. Computer laboratory-oriented course. PREREQUISITE: CS-111 or familiarity with microcomputers.

CS-160 Fundamentals of Logic Design 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. 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: CS-170

CS-210 Fortran Introduction to the language FORTRAN with reference to the latest standards, special techniques for programming in FORTRAN. PREREQUISITE: CS-200

CS-315 Advanced COBOL A continuation of CS-220, COBOL, with emphasis on advanced computer problem solving. PREREQUISITE: CS-220

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: CS-210, CS-330, CS-340

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: CS-200, CS-210

CS-350 Computer Circuit Design Design of combinational and sequential digital circuits, programmable logic design, and firmware design. PREREQUISITE: CS-240

CS-410 System Design and Analysis Advanced topics in design of digital computer systems and components. PREREQUISITE: CS-405

CS-420/520 Operating Systems Concepts Methods in the analysis and design of large scale systems, including concepts of semaphores, processed, linear address space, resource allocation, protection and basic topics in operating system development. PREREQUISITE: CS-460

CS450/550 Data Base Management Systems Design Concepts and structures necessary to design and implement a data base management system, including physical file organization and data organization techniques, data models, networks, data integrity, and file security. PREREQUISITE: CS-220, CS-340

CS-571 Management of Technical Projects Management principles applied to the direction of computer-related projects including design, budget, time management, and production considerations.

CS-633 Language Theory and Automata/3 sem. hrs. Introduction to formal grammars, Backus-Naur notation. The formal theory behind the design of a computer language is studied. The corresponding types of automata which may serve as recognizers and generators for a language will be described. PREREQUISITE: CS-631 Programming Languages

CS-637 Compiler Design Theory/3 sem. hrs. Language theory will be applied to the design of a compiler for a high-level language. Parsing, syntax analysis, interpretation phase and code generation. Other areas of the compilation process will be covered, such as storage allocation, symbol table management, searching and sorting, and recursion. PREREQUISITE: CS-580 Introduction to Compilers and Interpereters

EE-310 Networks II Phasors, sinusoidal steady-state analysis, rms value, average power, balanced three-phase circuits, resonance, frequency response, two-port networks and laplace transforms. PREREQUISITE: MAT-220, EE-210

EE-340 Electronics II Analysis and design of single-stage and multi-stage amplifiers, difference amplifiers and operational amplifiers. Frequency response and other performance criteria with feedback. Oscillators. PREREQUISITE: EE-210, EE-310

EE-420 Field Transmission Lines Transmission lines and plane waves in uniform homogeneous media, reflection and transmission at discontinuities, Poynting's theorem. Time averages, power, energy attenuation, wave guides, cavities. Antennas and radiation. PREREQUISITE: EE-410

EE-571 Management of Technical Projects Management principles applied to the direction of engineering projects including design, budget, time management, and production considerations.

MAT-102 Introductory Algebra A basic review of algebra including algebraic terminology, polynomials and applications. Appropriate for non-math and non-science majors.

MAT-105 College Algebra (MAT-3002) Includes topics such as fundamental operations, functions and graphs, linear and quadratic equations, and conic sections.

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: MAT-220

MAT-420 Linear Algebra Matrices and systems of linear equations, vector spaces. Linear transformations, determinants, eigenvalues and eigenvectors, canonical forms, inner product spaces. PREREQUISITE: MAT-220

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: MAT-210

TEC-370 Technical Documentation I Development of technical documentation material and analysis of documentation, techniques for testing, the validation process and quality control, technical editing. PREREQUISITE: TEC-330