

1986

# Master of Science in Computer Based-Learning

Nova Southeastern University

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# Master of Science in Computer-Based Learning

With Specialization Areas in

- Adult Education
- Electronic Education
- Training and Learning



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A Computer-Based Program  
for Professionals Delivered  
Through UNIX\*

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 **NOVA UNIVERSITY**

Center for Computer-Based Learning  
Information Sciences  
3301 College Avenue  
Ft. Lauderdale, Florida 33314

Center for the Advancement of Education  
Computer Education  
3301 College Avenue  
Ft. Lauderdale, Florida 33314

\*UNIX is a trademark of AT & T Technologies and Bell Laboratories.



# Nova University

CENTER FOR COMPUTER-BASED LEARNING

3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7047

Dear Fellow Professional:

Enclosed you will find a program description and application materials for our Master of Science in Computer-Based Learning (MSCBL) program with specializations in adult education, electronic education, and training and learning.

Nova University is now accepting applications. Students can begin the program at anytime. A significant portion of student work will be completed using Nova's VAX 11/780 running BSD 4.2 UNIX.

If you are interested in applying for the computer-based master's program, please complete the enclosed application form and admissions portfolio form and mail them directly to:

Nova University  
Center for Computer-Based Learning  
Admissions Office (MS/CBL)  
3301 College Avenue  
Ft. Lauderdale, FL 33314

The application form must be accompanied by a check or money order in the amount of \$30.00, payable to Nova University. The remaining credentials should follow soon in order to complete your file for final acceptance:

1. Three letters of recommendation
2. Official transcript(s)

If you should need additional information, please call 305-475-7047. Thank you for your interest in our MSCBL program.

Sincerely,

John A. Scigliano  
Director  
Center for Computer-Based Learning

Al P. Mizell  
Director  
Graduate Programs in  
Computer Education

Nova University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's, master's, educational specialist, and doctoral degrees. Nova University admits students of any race, color and national or ethnic origin.

**NOVA UNIVERSITY**  
**MASTER OF SCIENCE IN COMPUTER-BASED LEARNING**  
**WITH SPECIALIZATION AREAS IN**  
**Adult Education**  
**Electronic Education**  
**Training and Learning**

**THE MASTER OF SCIENCE PROGRAM**

Nova University, through its Center for Computer-Based Learning (CBL) and the Center for the Advancement of Education (CAE), offers a master's degree program in computer-based learning with specializations in the areas of adult education, electronic education, and training and learning. The program is designed specifically for the education of professionals seeking or holding jobs in education, business, industry, government, and the military. The program is concerned with the educational uses of computers, networking, information management, and telecommunications. Students can earn an advanced degree by using a combination of individual study, computer-based learning, teleconferences, and seminars, while at the same time making significant contributions to their own organizations.

**PHILOSOPHY AND MISSION**

The master of science program embodies a commitment to provide quality graduate education. This commitment stems from the goal to foster more productive and creative computer-based learning environments by improving the skills of those who are currently involved, and of those who would like to become involved, with the planning, management, and delivery of education and training using technology. Thus the program is designed for practitioners who are employed or seek employment in the fields of education and training. However, the master's program is not designed to provide initial K-12 teacher certification.

Having established this mission, the field-based delivery system was developed as the most appropriate means for offering the program. The most salient aspects of this approach are the extensive use of computer-based telecommunications supplemented by the intensive summer institutes. Students currently working as educators or trainers will gain the ability to apply their newly acquired knowledge and competencies to the test of reality through direct application within their own work environments. Similarly, those individuals preparing to enter the education or training field will also gain the knowledge and skills required to perform effectively in their new profession.

## PROGRAM OVERVIEW

The major purpose of the Nova University master of science in computer-based learning program is to provide a rich learning environment for educators and training practitioners, as well as for individuals seeking employment in these fields. The program facilitates the design and application of computer-based systems based on emerging technologies in computers and telecommunications. It enables students to develop programs and instructional systems to use in their own work environments to take full advantage of the latest in software tools, telecommunications, and hardware design. For this reason, the program has been designed to operate in a UNIX\* environment. The UNIX operating system is rapidly expanding into most fields of computer usage—from university mainframe environments to office computers to personal microcomputers.

Students begin their studies at their home locations using their own equipment immediately on qualifying for the program. Their work in the introductory course (An Introduction to Digital Computers and Telecommunications) will enable them to communicate electronically and to use the basic features of the UNIX operating system. They will then continue to complete the remaining courses online and participate in online conferences.

Students seeking the master of science in computer-based learning degree will select from three specialization areas: adult education, electronic education, or training and learning. The adult education and electronic education specialization areas are offered to practitioners working in an educational setting as well as to those who are seeking positions in the field of education. The specialization in training and learning is designed for individuals who want to learn, or to improve skills in, computer-based training design. The new demands on specialists in the training field require them to collect the “right” information and package it in a form that leads to effective training programs. All of the specialization courses concern the application of the theory and use of the tools of information and computer science.

The UNIX operating system was selected to facilitate an environment that nurtures the development of a new cadre of leaders in computer education and training. UNIX was developed at Bell Laboratories to foster a cooperative atmosphere among scientists and engineers. The system is used in this program not only for its extensive set of tools for automation but also to facilitate idea sharing and joint projects among the students enrolled. UNIX operates at Nova University on a Digital Equipment Corporation mainframe computer, a VAX 11/780. Students make telephone connection with Nova’s computers by dialing phone numbers in their local areas. Package switching makes this facility possible at no additional cost to the student.

*\*UNIX is a trademark of AT&T Technologies and Bell Laboratories*

Students who do not live in a Tymnet access location within the continental United States will have to pay a toll or service charge to their nearest local Tymnet number. All students must purchase connect time in packets of 20 hours each at the time of registration. Students use about 80-100 hours of online time each year.

### **TELECOMMUNICATIONS LINK**

Each student will need a personal computer; communications software and a modem; or a terminal with a modem. The student who does not currently own this equipment should talk with a local dealer regarding the requirements necessary to communicate with Nova University's VAX 11/780.

### **THE COHORT CONCEPT**

Learning activities are delivered online to students organized into or groups of learners or "cohorts". New students may join the most newly formed cohort anytime during the year. The major advantage of the cohort or "team" concept is that students gain a feeling of cohesiveness as they share with one another the issues pertinent to the computer education and training fields and issues relating to the curriculum of the program.

### **WRITTEN ASSIGNMENTS AND PROJECTS (PRACTICUM ARCHIVE)**

Although the actual writing process usually takes place offline on a microcomputer, all assignments eventually are mailed electronically to a central point for evaluation and feedback. Students are required to complete satisfactorily a practicum, i.e., an applied research project that addresses significant problems in education or training. These projects are reviewed, corrected, and stored online. The Writer's Workbench (WWB) is available in the UNIX environment for processing of student projects.

Practicums are stored online and can be accessed through a menu system. Each practicum can be read and online comments can be added by the reader to be shared with the author. If the author is online at the time of access, the reader is notified of this and can "talk" directly with the author of the practicum.

## **PRACTICUMS**

The practicum process is designed to allow students to investigate a situation or problem that is important to the computer education and training fields. This process will enable the students to investigate situations directly related to their coursework or to activities within their own institutions or organizations and translate course theory into practice. Upon completing the investigation, students should be able to reach conclusions and offer recommendations that have the potential of contributing to the improvement of professional practice. Such recommendations could result in increased outputs, more effective procedures, or implementation of creative techniques. Master of science students must complete one practicum. The practicum component is offered to students in two parts. The first part of the practicum component requires students to complete a practicum proposal. Upon approval of the proposal, students will then be able to complete the second part of the practicum component—a final report of publishable quality on a CBL design project.

## **CAMPUS EXPERIENCE**

Students are required to attend two one-week (seven-day) seminars at the Nova main campus. All master's students meet together at the formal week-long institute during the summer after they begin the program and again during the following summer. The institute is scheduled to be held in middle to late July. Networking with colleagues and professionals in the field also takes place at the institutes and is an important element of the program. Students participate in a variety of activities such as presentations, informal interactions, lectures, discussions, institute activities related to their coursework, and completion of exams. This event brings together students from all geographic locations served by the program. Instructional costs for the institutes are included as part of the students' tuition. Students are required to provide their own lodging and travel expenses for the institutes. Students in the master's program become part of the most recently formed cohort and begin their coursework as soon as their applications are reviewed and approved for admission.

## **COURSES**

The four major components in the master's program are: 1) six, three-semester hour credit core courses; 2) four, three-semester hour credit courses in the specialization area; 3) two, one-week summer institutes during the program, and 4) completion of a practicum report.

There are six separate online core courses in the master's program. Master's level students in all specialization areas take the same core during their first year. The core is offered by the Center for Computer-Based Learning. This center is responsible for instruction, materials, and grading of these first 24 credits. Students also select one specialization area consisting of four three-credit courses. The Center for the Advancement of Education offers two specialities in the computer education area: adult education and computer education. Students may select a third specialization in training and learning that is housed in the Center for Computer-Based Learning. Any one of these specializations will prepare students to apply for the computer-based educational specialist (Ed.S.) or doctoral degrees (Doctor of Arts in Training and Learning, and Doctor of Education in Computer Education) offered by Nova University.

## SEQUENCE OF INSTRUCTION

Students begin their coursework as soon as they are accepted into the program. Students are required to register for two courses per three-month term. Below are registration dates that students can choose from to begin the master's program during the 1986-87 Academic Year:

August 1, 1986 - October 31, 1986

September 1, 1986 - November 30, 1986

October 1, 1986 - December 31, 1986

November 1, 1986 - January 31, 1987

December 1, 1986 - February 28, 1987

January 1, 1987 - March 31, 1987

February 1, 1987 - April 30, 1987

March 1, 1987 - May 31, 1987

April 1, 1987 - June 30, 1987

May 1, 1987 - July 31, 1987

June 1, 1987 - August 31, 1987

July 1, 1987 - September 30, 1987

Regardless of the specialization selected, students will be scheduled to take a core of six courses and complete a practicum during the first year in the program. The practicum component is offered in two sections (Parts I and II). Students will then select a specialization area and take their four specialty area courses. The core courses and the courses in each specialization are listed below:

### CORE COURSES:

#### Offered by the Center for Computer-Based Learning

3 credits #1 - CBL 5501 An Introduction to Digital Computers and Telecommunications

3 credits #2 - CBL 5502 Online Information Systems

3 credits #3 - CBL 5503 Statistics, Measurement, and Quality Control

3 credits #4 - CBL 5504 Instructional Theory and Design for Computer-Based Learning

3 credits #5 - CBL 5505 Database Management Systems

3 credits #6 - CBL 5506 Learning Theory, Problem Analysis, and Artificial Intelligence

3 credits #7 - CBL 5509 Practicum in Computer-Based Learning, Part I

3 credits #8 - CBL 5510 Practicum in Computer-Based Learning, Part II

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24 credits to be taken in the first year

Master of science students then take the four courses listed in their specialization area.



## **ADULT EDUCATION (AE) SPECIALIZATION**

### **Offered by the Center for Advancement of Education**

Students employed in colleges or universities (higher education) or in adult education will take the following four three-credit courses:

- #9 - CED 5571 Administrative and Management Applications of New Technology
- #10 - CED 5572 Introduction to Structured Programming in Pascal
- #11 - CED 5573 Advanced Computer Programming in Pascal
- #12 - CED 5575 Specialized Project in the Adult Education, Higher Education, or Vocational, Technical, and Occupational Setting

## **ELECTRONIC EDUCATION (EE) SPECIALIZATION**

### **Offered by the Center for Advancement of Education**

Students employed in K-12 settings and involved in the use of computers in teaching or administration will take the following four three-credit courses:

- #9 - CED 5571 Administrative and Management Applications of New Technology
- #10 - CED 5572 Introduction to Structured Programming in Pascal
- #11 - CED 5573 Advanced Computer Programming in Pascal
- #12 - CED 5574 Specialized Project in the K-12 setting

## **TRAINING AND LEARNING (TL) SPECIALIZATION**

### **Offered by the Center for Computer-Based Learning**

Students employed or seeking employment in business, industry, government, or the military who are involved, or would like to become involved in, the use of computers and/or other technology in training settings will take the following four three-credit courses:

- #9 - CBL 5531 CAI Authoring Systems
- #10 - CBL 5532 Analysis and Design of Computer-Based Training Programs
- #11 - CBL 5535 Management and Finance of CBT Programs
- #12 - CBL 5536 Special Problems: Case Analyses in Training

## **PROGRAM ADMINISTRATION**

### **ADMISSIONS**

The entire program for the M.S. degree in computer-based learning should take from 18 to 24 months to complete. The following requirements must be satisfied by each applicant to be accepted into the program:

1. A bachelor's degree from a regionally accredited college or university with accompanying transcripts
2. Introductory level computer literacy that includes access to and ability to use a personal computer and modem
3. A GRE score OR completion of portfolio form with appropriate work experience and credentials
4. Three letters of recommendation
5. A completed application form with a \$30.00 application fee

The director of admissions and the Center for Computer-Based Learning staff will make all decisions concerning admissions.

### **FEES AND TUITION POLICY**

Application fee	\$30.00 (nonrefundable)
Tuition-Master's level	\$3000/year or \$125/credit hour
Registration fee	\$15.00 per three-month term
Online fee	\$140.00/20-hour packet (\$7.00/hour) per three-month term
Late fee (registration)	\$25.00 if tuition is not received by due date

The application must be accompanied by a \$30.00 check made payable to Nova University. This is a one-time nonrefundable fee. Master's students must maintain continuous enrollment in the program by both registering and paying all tuition fees. Students register for two courses during each three-month term, four times per year at \$125 per credit hour. In addition, there is a \$15 registration fee for each three-month term. Master's students going beyond two years enter continuing services at an additional charge. There is a \$15 registration fee for each three-month term. In addition, students must also purchase computer time in packets of 20 hours at \$7.00 per hour. This charge must be paid at the time of registration. This cost includes both the time on the Nova mainframe and the cost of Tymnet. There is no extra charge for students who can dial Tymnet as a local number. Otherwise, students will be required to pay their own toll access charges to the nearest Tymnet location. Students who go over the connect hours purchased at the time of registration will be billed for additional time at the rate of \$7.00 per computer-connect hour.

Access to the mainframe computer at Nova is through Tymnet during the hours of 6 P.M.- 7 A.M. Monday-Thursday and from Friday at 6 P.M. - 7 A.M. Monday. This is "local" time in the student's time zone. There are five holidays during the year when access is available all day: Labor Day, Thanksgiving Day, Christmas Day, New Years Day, and Independence Day. Special reminders are posted just before these holidays.

Annual costs for the program vary with each individual but the following breakdown of typical expenses may serve as a planning guide:

• Application fee	\$ 30.00 (one time)
• Annual tuition	\$3000.00 per year
• Registration and service fees	\$ 60.00 per year
• Books and materials	\$ 250.00 per year
• Online charges	\$ 900.00 per year
• Institute travel, meals, rooms, etc.	\$1000.00 per year
<hr/>	
Estimate for first year	\$5240.00 total

**Potential Additional Expenses:**

- Computer equipment and modem if not currently owned: \$1000 to \$5000.
- If access to your Tymnet node is not a local call, additional toll charges may run \$5 to \$15/hour. (Access is available world-wide; however, charges are usually higher from outside the United States).

Tuition rates are subject to change. Students must pay tuition at the time of registration and may not register for additional courses if they have an outstanding balance against previous tuition. A late fee is assessed on late tuition payments.

Included in the tuition are the following: study guides, handouts, and case analysis documents. Students must purchase their own textbooks. Students' travel expenses for the campus institutes are not included in the tuition.

**WITHDRAWAL**

Students who wish to withdraw from the program—either temporarily or permanently—must inform the Admissions Office in writing to be eligible for allowable refunds. Students who give written notice of their intent to withdraw prior to a course will not be assessed for that or subsequent courses until they are formally readmitted. Students who withdraw and reenter are assessed a readmission fee of \$30.00 and are subject to the prevailing tuition rate. Individuals who have withdrawn but wish to be readmitted, must complete a readmission form and be approved for readmission by the Admissions Committee of the Master of Science in Computer-Based Learning Program.

## **REFUNDS**

Students who use no online computer time but who have paid tuition, and notify the Center for Computer-Based Learning of their intention to withdraw from the program prior to the beginning of a new term, will be entitled to a full refund of all monies paid, with the exception of the \$30.00 nonrefundable application fee. Students who withdraw prior to the end of the third week after a new term begins will be entitled to a 60% refund of tuition. Refund credit will not be given after the end of the third week of a new term. In regard to refund of online fees, the adjustment will depend on the hours used. If an applicant is rejected all monies will be refunded except the nonrefundable \$30.00 application fee. Tuition may be paid by check, money order, Mastercard, American Express, Choice, or Visa. Please call Accounts Receivable at 305-475-7614 for more information.

## **FINANCIAL AID**

Nova University operates several programs of student financial aid in order to assist the greatest number of its students possible in meeting educational expenses. Its financial aid programs derive from federal, state, and private sources. Details of the various programs are available from the Office of Student Financial Planning and Resources, 305-475-7411.

## **V.A. BENEFITS**

Nova University academic programs are approved by the Coordinator for Veterans Approval, State of Florida, Department of Education, for veterans educational benefits. The V.A. Representative will assist veterans in applying for benefits.

## **STANDARDS OF PROGRESS FOR VA STUDENTS**

VA students must attain and maintain a minimum grade point average (GPA) of not less than 2.0 ("C" 70-79%) each evaluation period (e.g. term, semester, quarter). VA students also must meet any GPA, skill, or technical requirements of their particular program.

VA students who, at the end of any evaluation period, have not attained and maintained satisfactory progress (2.0 GPA or better) will be placed on academic probation for the next evaluation period. Should VA students not attain and maintain satisfactory progress (2.0 GPA or better) by the end of the probationary period (one evaluation period), their VA educational benefits will be terminated for unsatisfactory progress.

Students whose VA educational benefits have been terminated for unsatisfactory progress may petition the school to be recertified after one evaluation period has elapsed. The school may re-certify the student for VA educational benefits only if there is a reasonable likelihood that the student will be able to attain and maintain satisfactory progress for the remainder of the program.

## STUDENT CONDUCT AND RIGHTS

Students are expected to comply with the legal and ethical standards of Nova University. Academic dishonesty and nonacademic misconduct are subject to disciplinary action. Specific instances of misconduct include, but are not limited to, cheating, plagiarism, knowingly furnishing false information to the University, and forging or altering University documents or academic credentials.

Students who feel their rights have been denied are entitled to due process. Information on grievance procedures is contained in the Policies and Procedures Manual and is available from the Center for Computer-Based Learning office.

## GRADING SYSTEM

Students in the master of science program in computer-based learning are assigned grades on their coursework according to the following system:

GRADE	ACHIEVEMENT RATING	QUALITY POINTS
A	Excellent	4
B	Satisfactory	3
C	Marginal Pass	2
F	Failure	0
P	Pass ( <i>used for practicum</i> )	
I	Incomplete	
PR	In Progress ( <i>used for practicum</i> )	
W	Withdraw	

Faculty members are responsible for assigning grades for the courses they teach. Practicum evaluators assign grades for practicums. In most courses, a grade of A,B,C, or F will be assigned based on the instructor's assessment and evaluation of the student's work. Practicums are graded as PASS (P) or FAIL (F).

An INCOMPLETE for a course indicates that the student has failed to meet ALL requirements; however, it is reasonable to expect that the student WILL be able to satisfy the requirements. An INCOMPLETE must be made up within one year of the date the student registered for the course. If not, it becomes a FAIL. Students who receive two FAIL grades will be dismissed from the program and may not be readmitted.

## **STUDENT PROGRESS REPORTS**

The Center for Computer-Based Learning maintains up-to-date records on each student. Students are given working transcripts from the Student Services Office that show the current status of grades and earned semester hours for all courses completed and/or attempted, and for courses in which students are currently enrolled.

## **TRANSFER OF CREDIT**

Up to six semester hours of prior graduate work may be transferred into the program if the content was directly related to the work required in this program and it was offered at the same or higher academic level. These credits must be from an accredited institution. The student must have received a grade of "B" or better in all credits considered for transfer, and credits must have been earned within the past ten years.

## **EQUIVALENT EXPERIENCE**

Up to three hours of credit may be granted for skills acquired in nonacademic settings if the student can show these skills at the level required in this program. A \$50.00 fee is charged for such evaluation. At least 27 credits in the degree program must be completed through Nova University.

## **GRADUATION REQUIREMENTS**

To be eligible for graduation students must satisfy the following:

1. Successful completion of ten three-semester hour courses in computer-based learning (six common core and four specialization courses),
2. Successful completion of a three credit action research practicum proposal (Part I) and successful completion of a three-credit action research practicum project (Part II),
3. Attendance at two one-week summer institutes on Nova University's main campus in Fort Lauderdale, Florida
4. Attainment of a grade point average of 3.0 or higher,
5. Current status in all tuition and fees.

Total credit for the entire program is 36 semester hours.

All requirements must be completed within seven years of the student's start date.

## **COURSE DESCRIPTIONS**

All courses contain numerous assignments that are available both online and in study guides. Much of the work on assignments is done offline and then uploaded to the student's home directory in UNIX. Later, assignments are mailed electronically to the proper destination or directory. Assignments are designed to require manipulation of text or data by the many application programs in UNIX, and all text submitted must be treated by the appropriate tools of the Writer's Workbench (WWB). The common core courses are listed below with common core course descriptions, followed by the specialization course descriptions.

### **CBL 5501 — An Introduction to Digital Computers and Telecommunications**

Students are required to demonstrate mastery of key concepts and rules pertaining to the use of digital computers and the UNIX operating system. Topics include: UNIX tools, data communications, uploading and downloading files, text formatting with nroff, text editing with ex, ed, vi, and sed. Students learn to apply applications packages that run under the UNIX system.

### **CBL 5502 — Online Information Systems**

Topics include computer-based information telecommunications networks such as DIALOG (ERIC), etc. Other topics include: teleconferencing, video-disc technology, and the electronic office. Key concepts of the telecommunications industry are presented. Online work is provided in UNIX network applications (uucp, TIP, Usenet, kermit protocols) and also in DIALOG search and retrieval simulations.

### **CBL 5503 — Statistics, Measurement, and Quality Control**

Course content includes the various sampling techniques, descriptive statistics, non-parametric statistics, inferential statistics, survey construction, evaluation methodologies, quality control techniques, and the application of computer statistical packages to problems.

### **CBL 5504 — Instructional Theory and Design for Computer-Based Learning**

The major theories of instructional theory and design are presented. Topics include human problem solving, job analysis, feasibility studies, evaluation of instructional systems, research in media and instruction, and strategies for change in organizations. Instructional systems tools in the UNIX operating system are explored and applications are made to educational settings.

### **CBL 5505 — Database Management Systems**

The Ingres relation DBMS is used to assist students in the development of databases for use in professional settings. Topics include database concepts, data dictionaries, data directories, query languages, database administration, management of data, menu design, and database planning.

### **CBL 5506 — Learning Theory, Problem Analysis, and Artificial Intelligence**

The goal of this course is to prepare professionals to apply theories of learning to the development of computer-based systems in training programs and in educational settings. Topics include problem analysis in learning systems and the application of AI and expert systems in organizations through the C-Prolog language.

### **CBL 5509 — Practicum in Computer-Based Learning, Part I**

Students are required to produce a proposal of publishable quality on a CBL design project. Upon approval of their proposal, students will be able to produce the final practicum report.

### **CBL 5510 — Practicum in Computer-Based Learning, Part II**

Students are required to produce a final report of publishable quality on a CBL design project. This report will become part of the online student practicum database.

### **SPECIALIZATION COURSES:**

#### **CBL 5531 — CAI Authoring Systems for Computer-Based Learning**

Several different authoring systems are presented (LEARN and the Instructional Workbench in the UNIX system, PLATO, TICCIT, PILOT, etc.). Software tools are reviewed along with rules for documentation and formatting of files and directories. Guided design techniques are used in the application of UNIX systems to training programs.

#### **CBL 5532 — Analysis and Design of Computer-Based Training**

Analysis of training needs through assessment centers and job analysis strategies are presented. Menu and screen design using shellscripts and windows are presented. Computer conferences include discussions of interactive video and computer programs, CBT courseware development, standards in computer-based learning systems design, and the systems approach to project planning and evaluation.

#### **CBL 5535 — Management and Finance for Computer-Based Training**

Used in this course, to provide opportunities for students to demonstrate skills in the management of work organization, are methods of strategic management: strategic planning, portfolio analysis, strategy formulation, leadership, and strategies for changing structure are presented. Concepts in finance include budgeting, cost studies, financial ratio analysis, and funds flow.

#### **CBL 5536 — Case Analysis of Training Programs**

Cases from the Harvard Business School Case Service are used by students to develop creative approaches to training program design. Emphasis is placed on designing alternative systems through use of the following methodologies: brainwriting, cross-impact analysis, critiques of science fiction stories, and scenario writing. Computer conferences are used to promote discussion. An online (searchable) database of cases prepared by students serves as a learning resource in this course.



**CED 5571 — Administrative and Management Applications of New Technology**

Students will become familiar with administrative and management techniques. They will examine various management scenarios to explore ways that new technological developments can improve the management process.

**CED 5572 — Introduction to Structured Programming in Pascal**

Students will develop a systematic approach to problem solving that will result in a plan that can be coded in the Pascal programming language.

**CED 5573 — Advanced Computer Programming in Pascal**

Building on a foundation in structured programming, students will select an appropriate area for the educational application of computers. They will then create a usable Pascal program that incorporates advanced techniques to meet an identified need.

**CED 5574 — Specialized Project in the K-12 Setting**

Working with a faculty mentor, the student will identify a specific area of the use of high technology in education to be investigated in depth. A complete plan must be approved and the final product clearly documented and evaluated.

**CED 5575 — Specialized Project in the Adult Education; Higher Education; or Vocational, Technical and Occupational Setting**

Working with a faculty mentor, the student will identify a specific area of the use of high technology in education to be investigated in depth. A complete plan must be approved and the final product clearly documented and evaluated.

## PERSONNEL

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### CENTER FOR COMPUTER-BASED LEARNING — CENTRAL STAFF

John A. Scigliano, Ed.D.  
*Director, Center for Computer-Based Learning*

Jacques C. Levin, Ph.D.  
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Barry A. Centini, Ph.D.  
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*Research Associate*

Laurie P. Dringus, M.S.  
*Research Associate*

Gaby H. Charpentier  
*Assistant to the Director*

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### DOCTOR OF EDUCATION IN COMPUTER EDUCATION — CENTRAL STAFF

#### Center for the Advancement of Education

Al P. Mizell, Ed.D.  
*Director, Computer Education*

Johanne Peck, Ph.D.  
*Director, Research and Development*

Richard Goldman, Ph.D.  
*Director, Center for the Advancement of Education*

Elizabeth Poliner, M.Ed.  
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Toni Heppler, B.S.  
*Coordinator of Curriculum Development*

Stephen I. Siplet, Ed.D.  
*Director, Student Affairs*

Roberta J. Mignerey, MBA, CM  
*Administrative Assistant*

Linda Swails  
*Operations Manager*

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## ADVISORY BOARD MEMBERS

### Center for Computer-Based Learning

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IBM, Boca Raton, FL*

Peter R. Chylko  
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Abraham S. Fischler, Ed.D.  
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Lowell, MA*

Gabriel Ofiesh, Ph.D.  
*President  
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Systems International  
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*Dean  
Educational Services  
William Rainey Harper Col.  
Palatine, IL*

Alan D. White, M.S.  
*DATL Student  
Senior Associate  
CACI  
Arlington, VA*

Karl L. Zinn, Ph.D.  
*Professor  
Computer Science  
University of Michigan  
Ann Arbor, MI*

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# Nova University

CENTER FOR COMPUTER-BASED LEARNING

3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7047

Dear Applicant:

Attached is the admissions portfolio form for the master of science in computer-based learning program. The purpose of the form is to provide the admissions committee with information about your employment history, computer background, professional activities, etc., so that we can determine as fully as possible your eligibility to enter the program. You have the option of completing this form or submitting your score on the aptitude section of the GRE. If you choose to submit a GRE score it must have been taken within the last five years. If you complete the portfolio your application will be reviewed based on the information you provide on this form.

To exercise the portfolio option, please complete each of the ten sections on the pages attached. Forward the completed form along with the appropriate documentation to:

Center for Computer-Based Learning  
Master of Science in CBL Program  
Nova University  
3301 College Avenue  
Ft. Lauderdale, FL 33314

ADMISSIONS PORTFOLIO FORM

NAME \_\_\_\_\_ DATE SUBMITTED \_\_\_\_\_

Please provide documentation or examples of any of the following items that you feel necessary to support your portfolio.

1. EMPLOYMENT HISTORY (Specific job descriptions and dates)

2. GRADUATE COURSES FOR CREDIT.

3. PROFESSIONAL WORKSHOPS , SEMINARS, CONFERENCES AND SPECIAL MEETINGS. (LIST TOPICS)

4. PUBLICATIONS, PROPOSALS, AND REPORTS YOU HAVE AUTHORED.

5. MAJOR IMPROVEMENT PROJECTS OR INNOVATIONS YOU HAVE INSTITUTED  
IN YOUR INSTITUTION OR ORGANIZATION.

6. AWARDS, ACHIEVEMENTS, OR SPECIAL RECOGNITION YOU HAVE RECEIVED.

7. OFFICES HELD IN PROFESSIONAL ORGANIZATIONS.

8. COMMUNITY INVOLVEMENT (Clubs, religious organizations, committees, etc.)

9. EXPERIENCE WITH AUTOMATED SYSTEMS OR COMPUTERS (micro, mini, or mainframe—describe the nature and length of the experience).

10. WHAT COMPUTER EQUIPMENT DO YOU HAVE AVAILABLE FOR USE IN THIS PROGRAM? (TERMINALS, MAINFRAMES, MICROCOMPUTERS, MODEMS, COMMUNICATIONS SOFTWARE, ETC.). Also indicate the types of operating system you have on these machines.



**ADMISSIONS APPLICATION  
 AND  
 STUDENT CENSUS FORM**

OFFICE USE ONLY

PROGRAM CLUSTER CODE _____	
ACADEMIC UNIT _____	
ADMIT STATUS _____	INITIAL
MAJOR CODE _____	

(Type or Print)

UNDERGRADUATE  GRADUATE  DATE OF DESIRED ADMISSION \_\_\_\_\_ Mo. \_\_\_\_\_ Year \_\_\_\_\_

SOCIAL SECURITY NO. (U.S.A.) \_\_\_\_\_ Marital Status:  Single  Married Date of Birth \_\_\_\_\_  
 Sex:  Male  Female \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Last Name \_\_\_\_\_ First Name \_\_\_\_\_ M.I. Maiden Name \_\_\_\_\_  
 Address: Street & Number \_\_\_\_\_ Apt. \_\_\_\_\_ City \_\_\_\_\_  
 County \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Home Telephone \_\_\_\_\_

**EDUCATIONAL INFORMATION:**

PRIOR EDUCATION: HOW LONG SINCE YOUR LAST FORMAL EDUCATION? YEARS \_\_\_\_\_  
 High School from which you graduated \_\_\_\_\_  
 Name \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Year \_\_\_\_\_

All Colleges and Universities Attended. Transcripts from all Institutions are required.

Name of College	State	Date started	Date ended	Degree	Date

**ACADEMIC GOALS:**

Degree Objective: \_\_\_\_\_ Planned Major Field of Study \_\_\_\_\_ Expected Date of Completion or Graduation \_\_\_\_\_ Not Known

INSTRUCTIONAL LOCATION:  Main Campus  Coral Springs  Other (specify) \_\_\_\_\_

**EMPLOYMENT STATUS:**

Full-Time  Unemployed  Part-Time Job Title \_\_\_\_\_

Employer Name \_\_\_\_\_ Address: Street and Number \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Tel: \_\_\_\_\_ Ext. \_\_\_\_\_

**IN CASE OF EMERGENCY:**

Name of Person to Contact \_\_\_\_\_ Relationship of Contact (parent, friend, etc.) \_\_\_\_\_  
 Address of Person to Contact \_\_\_\_\_ Home Telephone \_\_\_\_\_ Business Tel. Ext. \_\_\_\_\_

**CITIZENSHIP STATUS**

U.S. Citizen: Yes  Resident Alien   
Non-Res. Alien  Indicate country of citizenship \_\_\_\_\_

Additional procedures are required for admission of non-resident alien students

**ETHNIC ORIGIN DATA REQUIRED UNDER CIVIL RIGHTS ACT**

For U.S. Citizen and Resident Alien

Check one of the following:  Hispanic Origin  
 White (Not of Hispanic Origin)  Asian or Pacific Islander  
 Black (Not of Hispanic Origin)  American Indian or Alaskan Native

**APPLICANT STATUS AT TIME OF APPLICATION:**

**Undergraduate:**

First Time At Any College  Transfer From \_\_\_\_\_  
 First Time At Nova Name of Institution  
 Returning to Nova After Absence  Other: (Specify) \_\_\_\_\_

**Graduate:**

First Time at Nova  Transfer  
 Returning to Nova After Absence  Special

**HOW DID YOU FIRST HEAR ABOUT NOVA UNIVERSITY?**

Family/Friend  Newspaper  Flyer or announcement  Yellow Pages  
 Employer  Radio/TV  Professional Publication  Educational Directory  
 Nova Student or Alumnus  High School or College Counselor

*For admission purposes, this application must be accompanied by the appropriate fee. (Consult catalog or Registrar's Office for specific amount.)*

**ORIGINAL WORK**

Assignments such as course preparations, exams, tests, projects, term papers, practicums, MARPS, etc., must be the original work of the student. Original work may include the thoughts and words of another, but if this is the case, those ideas or words must be indicated by quotation marks or other accepted reference devices.

Work is not original which has been submitted previously by the author or by anyone else for academic credit. Work is not original which has been copied or partially copied from any other source including another student unless such copying is acknowledged by the person submitting the work for the credit at the time the work is being submitted or unless copying, sharing, or joint authorship is an expressed part of the assignment. Exams and tests are original work when no unauthorized aid is given, received, or used prior to or during the course of the examination. Students violating this policy will be penalized up to and including expulsion.

I have read and do understand the above statement on original work at Nova University.

I declare that the above information, to the best of my knowledge, is true, correct, and complete.

I agree to abide by all rules and regulations of Nova University.

Applicant Signature \_\_\_\_\_

Date \_\_\_\_\_

*Nova University practices a policy of nondiscrimination in employment and admission. We hire employees and admit students of either sex and of any race, color and national or ethnic origin.*

# NOVA UNIVERSITY

## RECOMMENDATION FOR ADMISSION TO THE M.S. IN COMPUTER-BASED LEARNING PROGRAM

Name of Applicant \_\_\_\_\_

Institution or Organization \_\_\_\_\_

TO THE APPLICANT: One of the forms should be completed by an administrator or supervisor who can indicate the nature of your performance. Three (3) recommendation forms are required.

TO THE EVALUATOR: The individual named above has made application to the M.S. in Computer-Based Learning program. One of the steps in the admissions process requires each applicant to obtain three (3) letters of recommendation from administrators or supervisors denoting that the applicant has performed satisfactorily in his or her work. The items listed below concern the applicant's performance on the job. Your appraisal of the applicant will be used to help determine if the M.S. in Computer-Based Learning program is appropriate for this person. Please rate the applicant on the following items:

- |  |                   |                       |                      |
|--|-------------------|-----------------------|----------------------|
| 1. Attitude toward work                                | Somewhat negative | Average               | Positive             |
| 2. Motivation toward work                              | Low               | Average               | High                 |
| 3. Ability to carry out tasks                          | Low               | Average               | High                 |
| 4. Resourcefulness in identifying & carrying out tasks | Low               | Average               | High                 |
| 5. Emotional Control                                   | Unstable          | Usually well balanced | Always well balanced |
| 6. Interpersonal Relationships                         | Avoided           | Tolerated by others   | Well-liked by others |
| 7. Most significant strength                           | _____             |                       |                      |
| 8. Most significant weakness                           | _____             |                       |                      |
9. I have known the applicant for \_\_\_\_\_ years. The applicant has been a member of my staff for \_\_\_\_\_ years. I have known him/her well \_\_\_\_\_, slightly \_\_\_\_\_.
10. In my opinion, the candidate's potential for success in an M.S. program of studies is: Good \_\_\_\_\_, Average \_\_\_\_\_, Poor \_\_\_\_\_. I am unable to rate the candidate \_\_\_\_\_.
11. In my opinion, the candidate has the ability to carry out effectively an institutional or organizational research project: Yes \_\_\_\_\_, No \_\_\_\_\_.

12. I have observed the candidate's work on institutional or organizational projects and find the product: Good \_\_\_\_\_, Average \_\_\_\_\_, Poor \_\_\_\_\_, Unknown \_\_\_\_\_.

13. The candidate works effectively with administrators or supervisors at his institution or organization. Yes \_\_\_\_\_, No \_\_\_\_\_.

14. The candidate has been involved in innovative projects at his institution or organization. Yes \_\_\_\_\_, No \_\_\_\_\_.

Date \_\_\_\_\_ Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Institution or Organization \_\_\_\_\_ Department \_\_\_\_\_

MAILING ADDRESS: Admissions Office  
Information Sciences  
Nova University  
3301 College Avenue  
Ft. Lauderdale, FL 33314

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| 2. Motivation toward work                              |                   |                       |                      |
| 3. Ability to carry out tasks                          | Low               | Average               | High                 |
| 4. Resourcefulness in identifying & carrying out tasks | Low               | Average               | High                 |
| 5. Emotional Control                                   | Low               | Average               | High                 |
| 6. Interpersonal Relationships                         | Unstable          | Usually well balanced | Always well balanced |
| 7. Most significant strength                           | Avoided           | Tolerated by others   | Well-liked by others |
| 8. Most significant weakness                           |                   |                       |                      |
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14. The candidate has been involved in innovative projects at his institution or organization. Yes \_\_\_\_\_, No \_\_\_\_\_.

Date \_\_\_\_\_ Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Institution or Organization \_\_\_\_\_ Department \_\_\_\_\_

\_\_\_\_\_

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Information Sciences  
Nova University  
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Ft. Lauderdale, FL 33314

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1. Attitude toward work	_____	_____	_____
	Somewhat negative	Average	Positive
2. Motivation toward work	_____	_____	_____
	Low	Average	High
3. Ability to carry out tasks	_____	_____	_____
	Low	Average	High
4. Resourcefulness in identifying & carrying out tasks	_____	_____	_____
	Low	Average	High
5. Emotional Control	_____	_____	_____
	Unstable	Usually well balanced	Always well balanced
6. Interpersonal Relationships	_____	_____	_____
	Avoided	Tolerated by others	Well-liked by others
7. Most significant strength	_____	_____	_____
	_____	_____	_____
8. Most significant weakness	_____	_____	_____
	_____	_____	_____

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Date \_\_\_\_\_ Signature \_\_\_\_\_  
Name \_\_\_\_\_  
Title \_\_\_\_\_

Institution or Organization \_\_\_\_\_ Department \_\_\_\_\_  
\_\_\_\_\_

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3301 College Avenue  
Ft. Lauderdale, FL 33314