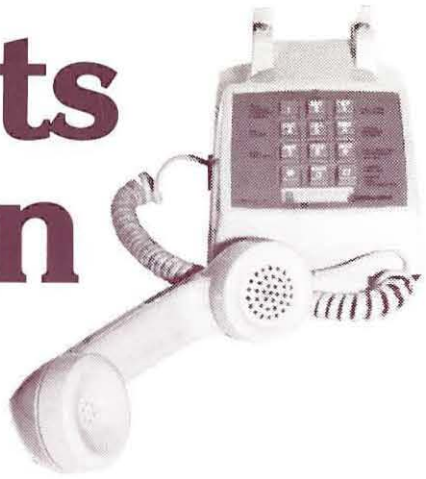
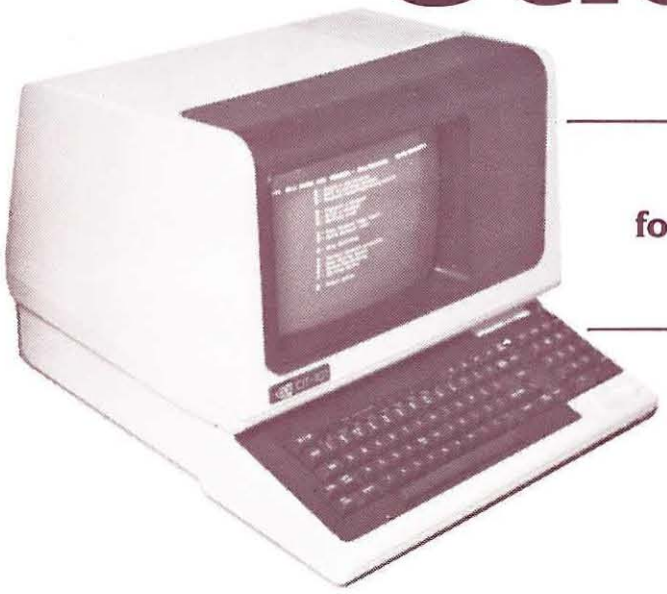
1983

Doctor of Arts in Information Science 1983

Nova Southeastern University

Doctor of Arts in Information Science





A Computer-Based Program for Information and Media Professionals Delivered Through UNIX*

NOVA UNIVERSITY

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

*UNIX is a trademark of Bell Laboratories.

Nova University
INFORMATION SCIENCES
3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7047

Dear Fellow Professional:

Enclosed you will find a description of the program and application materials for our Doctor of Arts in Information Science (DAIS),

If after reading the materials, you find you are interested in applying, please complete the enclosed application form and mail it directly to:

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

The application form must be accompanied by a check or money order in the amount of $25. The remaining credentials should soon follow in order to complete your file for final acceptance:

1. Completed Portfolio or GRE Scores
2. Reference letters
3. Transcripts

If you should need additional information, please do not hesitate to call 305-475-7047.

Thank you for your interest in our DAIS program. We look forward to receiving your application.

Sincerely:

Barry A. Centini

Barry A. Centini, Ph.D.
Director
Doctor of Arts in Information Science

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AN INVITED PAPER PRESENTED AT THE ASIS CONFERENCE
May 21, 1985

UNIX IN AN ELECTRONIC COMMUNITY OF SCHOLARS: NOVA UNIVERSITY'S DOCTOR OF ARTS IN INFORMATION SCIENCE

John A. Scigliano and Barry A. Centini

Nova University
Fort Lauderdale, Florida

ABSTRACT

Nova University's Doctor of Arts Program in Information Science is described by its designers. The program is offered over packet switching networks to students that connect to a DEC supermini computer on the main campus in Fort Lauderdale, Florida. Focus in the program is on the theory and practice of information science, especially those aspects involving automation of libraries and media centers. Seminars are conducted in several locations in the United States. The UNIX* operating system, developed by Bell Laboratories serves as the host environment for all online work. Application packages used by students in the program include: relational databases, statistical tools, simulation languages, and numerous search and retrieval tools. All assignments, practicums, and dissertations are uploaded to the host machine where they are stored in an online database for future reference by faculty and students.

INTRODUCTION

Recent advances in digital computers and telecommunications have raised serious doubts about future education opportunities for professionals in the information science field. In November 1979, more than 3,600 participants attended the First White House Conference on Library and Information Science. The theme of the conference, Bringing Information to People, is significant since it ushers in an

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* UNIX is a Trademark of Bell Laboratories

age where libraries and information centers will be viewed as important agencies in shaping the future. The Conference, and the challenges posed by its recommendations, have implications for the education of a new breed of information professional--practitioners that will need to be experts at knitting all forms of technology into effective information utilities. The doctoral program recently developed by Nova University attempts to provide a vehicle, for practicing library and information specialists, with the skills needed to apply the latest developments in digital computers, telecommunications, information science, and strategic management. The program is delivered in an electronic and telecommunications environment consistent with the concepts and philosophy of the profession itself.

Although much has been written about the "electronic classroom", little in the way of implementation is in evidence (1, 2, 3, 6, 7, 9 10). An exception to this can be found in Nova University's Doctor of Arts in Information Science program. The program depends heavily on the use of microcomputers, modems, and telecommunications networks in conjunction with a supermini computer host. Students from 26 different states, including Alaska, conduct their online classwork in coordination with lecturers that teach the seminars. Students complete their online work using the tools of UNIX, and they do work offline using a portable computer with its word processor and other utilities.

W. Stanley Brown of Bell Laboratories, in a presentation at the American Library Association Annual Meeting of 1983 in Los Angeles, set the stage for online work of this nature. Brown called the futuristic collection of emerging technologies "electronic communities". His model contained four major categories: file systems (writing tools, electronic mail, computer conferencing, bulletin boards, and calendar aids); databases (bibliographic, historical, and scientific); advanced services (online ordering, news, and weather); network services (file transfer, virtual terminal access, and cooperating processes). At the heart of all this was the UNIX operating system developed at Bell Laboratories by Ken Thompson and Dennis Ritchie (4). Following Brown's lead, the Nova University doctoral program has grown into a true electronic community of practicing librarians, professors, and computer scientists.

Benefits derived from the electronic community at Nova University are:

1. Electronic mail that speeds communication and gives rapid feedback on learning problems, reduces paperwork, allows storage and retrieval of student records, and

helps provide a better understanding of policies and procedures.

2. Computer conferences that support discussion of issues and concepts before seminars, allow contributions on topics over a period of weeks or months, provide a means for program development and evaluation.

3. A diverse set of UNIX tools that supports rapid retrieval of information required for learning, and writing improvement tools that enhance communication of ideas.

4. Computer-assisted instruction that provides rapid feedback to students and a log of students' progress.

5. An online environment that provides an ideal setting for students to share completed projects (databases of approved practicum proposals, completed practicums, and major projects).

The Doctor of Arts in Information Science program began on Friday November 4, 1983 with the first weekend seminar in Fort Lauderdale, Florida. Development of the program spanned the eleven months leading up to that seminar. The program is delivered in a field-based mode--a natural evolution of Nova University's fourteen years of designing graduate programs for professionals.

In August 1983 a meeting of the Advisory Board for the D. A. Program was held in Miami, FL. The Board reviewed the progress of the developmental effort and made numerous suggestions for improvement of the program. These included the following: availability of online consultants for students, confronting the "tough issues" in information science, providing more computer time for each course, using a personal computer for local work instead of a dumb terminal, and allocating considerable time at the seminars for student gripes and questions. All these suggestions have been implemented in the program. In addition the Board recommended that the program staff: build in a capacity for students and faculty to see how needs in information science are changing, inculcate in students a vision of the effects of information on society, let the practicums become vehicles for using the networks to solve information problems, and monitor closely how librarians define their own roles and how they will change roles as they acquire new skills in information science. The Board outlined the "tough" policy issues in information science as: ownership, access, privacy, ethics, centralization, management, and marketing of information. Other important issues mentioned were: the

political process, international aspects, equity, and funding involving information in society.

The Doctor of Arts Degree (D.A.) was designed for faculty in higher education. Simmons College in Boston, MA offers a D. A. degree in Library Administration. The D.A. degree is granted in a wide range of disciplines: history, chemistry, etc. and has been billed as a path to renewal and professional growth for practitioners that seek a terminal degree.

Nova University chose to offer the D. A. program in a field-based mode because of its experience with doctoral level programming (5). The University currently operates graduate programs in many states around the country. The rationale for field-based programs was stated by Dale Tillery of the University of California, Berkeley:

> As in the clinic, the courts, and the laboratory the arena for much professional learning is in the daily life of real institutions. Why demand that the student leave these natural laboratories for the lecture hall or the seminar room? It makes more sense to import the theoretical and scholarly components to this real world than to deport the student from the very settings in which he needs to gain and refine new insights, sensitivities, and skills. This recognition of the great learning possibilities in professional settings need not result in provincialism nor in self-confirmation (8:76).

To this day, Tillery's comments continue to justify the delivery of instruction to the professional's locale. The value added by the D. A. program is the electronic link between student and professor and the extensive environment for learning made possible by UNIX.

The field of information science is developing rapidly. Recent advances in digital computers and telecommunications have opened many new jobs for qualified professionals. Major changes are occurring in the way people use information. The situation is becoming a challenge for the librarian. The librarian is in the middle of this dynamic environment, and all librarians will hold pivotal roles in shaping our information future. Libraries are the laboratories where major innovations will be made, and librarians need programs that support their learning of skills in digital computers, telecommunications, strategic management, and information science.

The availability of telecommunications networks, sophisticated software, and affordable personal computers makes a program of this nature a reality today. Now, the program is able to blend naturally with the latest library environments: online searching, networking of resources, word processing, and interlibrary loan servicing through electronic mail. The reduced costs of mounting a national effort of this kind came about within this decade. The role of UNIX in supporting the entire program should not be discounted.

MARKET SURVEY

During the Fall of 1983 a survey was conducted by Nova University to determine the interest of practicing librarians in a Doctor of Arts in Information Science Program (DAIS). A systematic random sample of five percent of the library directors named in the American Library Directory, 35 th ed. was selected. The return rate was 30 percent. The survey indicated that the type of librarian most likely to become involved in the DAIS program would come from either a four year college, a community college, or from a special library. An analysis of data about students enrolled in the program showed that only 10 percent of the students are employed in public libraries, 10 percent in special libraries, and 80 percent in secondary schools and college libraries. These data support the marketing projection.

UNIX AS AN ENVIRONMENT FOR INFORMATION WORK

There are a few good reasons why UNIX was selected for use in the programs at Nova University. The obvious reason is that it is a powerful system that has been tested by thousands of Bell Laboratories employees for almost two decades, and it works well. UNIX has over 300 commands that can be used by students as they acquire the generic skills needed to function in the complex information environments of the 1980's. The UNIX system promises hope for professionals in meeting the challenges posed by the diverse and complex information problems of modern organizations.

The UNIX operating system, developed by Bell Laboratories, serves as the host environment for all online work. Applications packages used by students in the program include: relational databases, statistical tools, simulation languages, and numerous search and retrieval tools. All assignments, practicums, and dissertations are uploaded to the host machine where they are stored in online database for future reference by faculty and students. UNIX provides utilities to integrate the computer into the

teaching/learning process in ways vastly different from the traditional classroom environment. In the UNIX environment the student maintains a high degree of control of his or her own learning. The attributes of the UNIX environment are:

- integrates the tools of information science into the learning situation in a continuous process
- provides a high degree of independence for students while permitting monitoring and control by program staff
- provides opportunities for exploration, design, and creativity with novel forms of tools, processes, and systems

The UNIX system provides a built-in Computer-Assisted Instruction (CAI) utility that presents the basics of the system to students through scripts or lessons. Bell Laboratories named this CAI system "LEARN". LEARN is a CAI authoring system and is used to develop customized scripts for the program. New students are encouraged to take all the LEARN courses available in the system. An online manual describing each command can be accessed by the command " man 'command'". A user friendly menu system has been developed that presents several options for CAI.

A UNIX laboratory has been established on the campus with various microcomputers and terminals connected by direct lines and modems to nova's VAX. The lab is used to introduce students to the system in a hands on, coaching manner. The goal is to provide all new students an introductory course in the lab before they go online. Plans are underway to establish additional laboratories in other locations.

UNIX is both the message and method of delivery, and this presents some problems. For example, in the course on Digital Computers in Information Science students explore the tools and application programs of UNIX, but to do so students should be comfortable moving about within the UNIX environment. To accommodate a wide variety of learning styles and beginning competencies a series of menu driven options was created. These options are included in a general menu that leads the student through a series of other menus, and to the menus accompanying the seminar conferences.

A VAX-11/780 computer is the host machine for this program. Each student is required to have a personal computer with provisions for downloading. Students access the

supermini computer by dialing a local number using Telenet or Tymnet packet switching systems.

Electronic mail is a key utility in delivering the program. Students send all assignments, receive all feedback, and communicate with their peers and their instructors through electronic mail. On login the student is notified if mail has been delivered during their electronic absence. The mail utility provides a way for one user to transfer files to any other user on the system. The electronic community extends to all parts of the University. For example, the President of Nova University is an active user and enjoys discussing academic matters online with students and faculty.

All course assignments are available both online and in study guides for each course. Much of the work on assignments is done offline and then uploaded to the student's home directory. Later, assignments are mailed (electronically) to the proper destination or directory. Assignments are designed to require extensive manipulation of text or data by the many application programs in UNIX, and all text submitted to Nova must be treated by the appropriate tools of the Writer's Workbench (WWB). This paper has been analyzed by WWB programs and formatted with a UNIX program called nroff.

A computer conference is conducted before each seminar. Each conference follows a common format: a conference "seed" solicits comments on a given topic; comments are entered by students through a menu driven program; indexes and other commands are used by students to read responses.

UNIX provides two methods for students to communicate directly with their peers and their professors. One provides a split screen--the top half for the user and the bottom for the individual receiving the message. The other method is less attractive but useful for users that lack a cursor control feature for their screens.

In addition UNIX provides a hierarchical file system that is tree shaped and contains special files called directories that contain lists of file names. By developing their own tree structures, students can organize information in novel ways. UNIX provides many tools for data management without the need special software additions.

In this program a steady flow of information moves to and from the students. Information management skills are necessary just to survive online. Acknowledgement of receipt of assignments, evaluative feedback, record keeping,

tutorial interactions, and practicum reviews must be done with conservation of time and storage space in mind. Considerable thought goes into shaping the online community to its regular members. The capacity to modify the environment to fit individual users is a major strength of the UNIX system.

PROGRAM STRUCTURE

Six modes of delivery are provided in the courses: regional seminars, computer conferences, computer-assisted instruction on a supermini computer, interactive real-time computer discussions with faculty members, electronic mail conversations, and assignments delivered electronically. Final examinations are taken by the students in person and supervised by a member of Nova University's Central Staff. All other written assignments, including practicums, are forwarded through electronic mail and stored in central databases.

A brief list of student outcomes follows:

- Function effectively using state-of-the-art developments in technology applied to information science.
- Have a highly developed awareness of ethical issues in the information science field.
- Show leadership in generating change where it is needed in facilitating improvements in the information field.
- Show confidence and effectiveness as a researcher and as a writer (independence).
- Value conservation techniques for the use of online resources (computer time, telecommunications, and staff time) and prove his or her effectiveness at these tasks.

The six major courses contain numerous assignments that must be completed in the online format. The content of each course reflects areas in the information field where improvements are needed. Condensed course descriptions are provided in the following section:

Digital Computers for Information Management

The student shows mastery of concepts and principles applied to digital computers through tools in the UNIX operating system.

Computer-Based Research and Statistics for Information Science

Course content includes research methodologies from the various disciplines (experimental and quasi-experimental, historical, case study, etc.), and the student applies computer statistical packages.

Strategic Management for Libraries and Information Centers

Eight areas of strategic management are presented: marketing, strategic planning, personnel practices, finance and accounting, fund raising, problem analysis, futuristics, and situational leadership. Case studies in management and computer conferences are used to supplement the seminars.

Telecommunications, Networking, and Computer Applications in Information Science

Topics include computer-based information telecommunications networks such as OCLC, BRS, and DIALOG. Other topics include: satellite communications, teleconferencing, and data security and encryption schemes.

Systems Analysis, Systems Design, Operations Research, and Computer Simulation in Information Science

Topics include: systems development and design, computer simulation, circulation models, human aspects of information systems, and acquisition models.

Database Management Systems, Text Processing, and Information Retrieval

In this course student work centers on relational database management systems design philosophies, data dictionaries/data directories, database administration, and database planning.

The emphasis in the seminars is on the key issues in information science. Leadership and the change process are primary areas of concentration throughout the twelve sessions. The seminar titles range from The Role of the Microcomputer in the Library and Information Centers to Networking, Consortia, and Shared Information Systems.

Since much of the program is delivered online, feedback about student problems is provided immediately. Questions that are asked repeatedly are stored in a database that is used for evaluation. Prior to each

seminar students are required to participate in a series of computer conferences dealing with the subject matter of the course. Professors provide a "seed" file that presents the issues and identifies additional readings that are required before the meeting. These conferences are implemented using a series of menus (screens) where students are asked to select the mode of participation. Each student is asked to make a contribution to the conference. One of these options provides for student feedback about the program (seminars, online work, computer conferences, etc.). This feedback is used in making decisions about future conferences and the program in general.

Students are required to pass a final examination in each of the six courses. The exams are given in person at the regional seminars. In addition, a comprehensive examination is administered at the end of the second year. Four practicums are required in the program. The practicum process in the D. A. program is designed to allow students to investigate a situation or problem that is important to the information science field. Generally, this will enable the students to investigate a situation directly related to activities within their own institution or organization. On 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.

A Major Field Project MFP is the focus of the final year. Each student is expected, with the help and approval of an advisor, to select a topic that is appropriate and of sufficient scope to satisfy this requirement. The student must conceptualize the most appropriate way to proceed, submit an online proposal, on approval of the proposal follow the procedures outlined, and prepare a final online report that must be approved by the student's committee. The mode of operation is the same as in most doctoral programs that are campus-based. The student works closely with a major advisor who, together with two other educators, constitute a MFP committee to advise and approve the project.

Since Nova University doctoral programs emphasize experiences that contribute to the professional improvement of the student, and the MFP is the capstone of those experiences, the nature of the project undertaken must be related to that overall goal. Accordingly, the project should be potentially useful in a professional situation, most likely in the institutions or organizations in which the student is employed. While aspects of research and survey practices may

be involved in an MFP, it is imperative that the project also: stem from a recognized and fully conceptualized need for change, be specifically oriented to the improvement of practice, and lead to a stated plan for implementing and evaluating the findings.

The following points summarize the lessons that have been learned in the development of the D.A. program:

1. Educational institutions should investigate alternate ways of getting computers into students' hands rather than purchasing the hardware for them. The problems of maintaining computers in operating condition for novice users far outweigh the advantages from encouraging new student participation. To illustrate, all seventeen students that have withdrawn from the program to date have been given personal computers by the University. About one in two of the applicants to the program owns a personal computer.

2. Online learning does not work the same for all students. Measures of learning styles can be correlated with performance measures to predict success. The small samples used in early studies indicate complex interactions between styles and online work.

3. The UNIX environment must be modified regularly through systems programs to allow staff and faculty to adapt to changing student needs.

4. Faculty must have both traditional classroom skills and computer competencies.

5. Menus are essential for beginning students. The assumption about students being computer competent on entering the program is not valid.

IMPLICATIONS

In the brief time since the inception of the DAIS program, a great many lessons about online learning and the electronic community have been learned. Some of these lessons have been outlined above. Any educational institution that enters into an electronic community must be prepared to make many sacrifices to accommodate students. For example, to be effective the electronic community requires attention twenty four hours a day. Different time zones and varied work habits of students can produce novel demands on professors and administrators. Therefore, professors and administrators involved in the electronic community must also be willing to work more and different hours than that

found in the traditional workload standard.

Similar obligations fall on students. Students that do well online appear to have learning styles that give them the self motivation and the stamina needed to complete complex tasks. Obviously, other parameters help determine this ability, such as, aptitude for computer work, high tolerance for ambiguity, and traits that fall in the realm of personality. Preliminary data show that many factors contribute to the ways students adapt to online environments. Success in the electronic community, however, will probably be determined (as usual) by students committed to hard work and their willingness to go beyond what is expected of them. The Community of Scholars gets no special treatment in the electronic community--just more hard work.

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DOCTOR OF ARTS IN INFORMATION SCIENCE

CURRICULUM SEQUENCE

First Year

Term 1	Term 2
DIGITAL COMPUTERS (5 Semester Hours)	RESEARCH AND STATISTICS (5 Semester Hours)
Seminar 1 Operating Systems: The Unix Environment for Information Management	Seminar 3 Computer Applications in Research
Seminar 2 The Role of the Microcomputer in the Library and Information Center	Seminar 4 Research in Information Systems
Practicum (4 Semester Hours)	Practicum (4 Semester Hours)

Second Year

Term 3	Term 4
STRATEGIC MANAGEMENT (5 Semester Hours)	TELECOMMUNICATIONS, NETWORKING, AND COMPUTER APPLICATIONS (5 Semester Hours)
Seminar 5 Case Studies in Management	Seminar 7 Networking, Consortia, Shared Information Systems
Seminar 6 Budgeting, Marketing, and Financial Issues	Seminar 8 Advances in Telecommunications
Practicum (4 Semester Hours)	Practicum (4 Semester Hours)

Third Year

Term 5	Term 6
SYSTEMS ANALYSIS, SYSTEMS DESIGN, OPERATIONS RESEARCH, COMPUTER SIMULATION (5 Semester Hours)	DATABASE MANAGEMENT SYSTEMS, TEXT PROCESSING, INFORMATION RETRIEVAL (5 Semester Hours)
Seminar 9 Issues in Library and Information Center Environments	Seminar 11 On-Line Catalogs and Automated Systems for Bibliographical Organization and Control
Seminar 10 Courseware Development, Learning Theory, Media, and Individualized Instruction in the Library	Seminar 12 Public Services and Consulting

MAJOR FIELD PROJECT

(20 Semester Hours)

TUITION AND REFUND POLICIES

TUITION FEES

Tuition fees for the doctoral program in Information Science are $3700 per year for the first three years. Tuition beyond the third year is $500 per six-month term. A one-time application fee of $25 must accompany the application form.

TUITION PAYMENT PLAN

Tuition may be paid in a single payment of $3700 or quarterly payments of $925. Payments are due ten (10) days before each regional seminar. There is a $60 yearly registration fee.

First Installment		Second Installment	
$925	(¼ tuition)	$925	(¼ tuition)
30	(registration fee)		
$955			

Third Installment		Fourth Installment	
$925	(¼ tuition)	$925	(¼ tuition)
30	(registration fee)		
$955			

Included in the tuition are study guides, microfiche, case analysis documents, audio teleconferences, computer conferences, telephone charges on Tymnet or Telenet for 40 hours computer connect time, and regional seminars (does not include toll charges to access Tymnet or Telenet).

OTHER EXPENSES

Attendance at twelve regional seminars is required for graduation. While there is no fee for the seminars, students must pay their own transportation and living expenses for these two-day seminars.

Students must purchase their own textbooks. The approximate cost is $100 per six-month term.

Students who do not live in a Tymnet or GTE Telenet access location will have to pay a toll charge to access their nearest local Tymnet or Telenet number. Students who go over the 40 connect hours per course, will be billed for additional time at the rate of $7 per computer-connect hour in addition to their local phone tolls.

There is a late payment fee of $50 and a reinstatement fee (for those who leave and then are permitted to re-enter the program) of $10. Repeated late payments will result in the studnt's being dropped from the program.

Students who wish to remain in the program, must maintain continuous enrollment in courses by both registering and paying all tuition and fees.

Any student who discontinues active participation in courses, but who wishes to continue online privileges must pay a $500 per term fee in addition to the standard fees for any computer connect time that is over 10 hours for each six-month term.

REFUNDS

Students who wish to withdraw from the program, either temporarily or permanently, must inform the Information Sciences Admissions Office in writing to be eligible for allowable refunds. Refunds and liabilities are calculated from the date the Admissions Office receives written notification.

If a region fails to form in the applicant's geographic area, all monies will be refunded (including the application fee).

If an application is rejected, the $25 fee will not be refunded.

FINANCIAL AID AND STUDENT LOANS

Information on Financial Aid and Student Loans can be obtained from your local bank or at our Financial Aid Office, 305-475-7410.

Tuition may be paid by MasterCard, Visa, or American Express. Please call Accounts Receivable 305-475-7616 for more information.

All checks should be made payable to Nova University.

"NOVA UNIX IS AVAILABLE
THROUGH TYMNET ONLY"

Dear Applicant:

Attached is the admissions portfolio form for our Doctoral 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 that you provide on this form.

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

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

Nova University
INFORMATION SCIENCES
3301 College Avenue, Fort Lauderdale, Florida 33314 • 305/475-7047

Name _____

ADMISSIONS PORTFOLIO FORM--INFORMATION SCIENCES*

1. EMPLOYMENT HISTORY (Specific job descriptions and dates)

2. GRADUATE COURSES FOR CREDIT

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

3. 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. HOW MANY TIMES HAVE YOU RUN FOR OFFICE? _____

9. COMMUNITY INVOLVEMENT (Clubs, churches, committees, etc.)

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

11. WHAT COMPUTER EQUIPMENT DO YOU HAVE AVAILABLE FOR USE IN THIS PROGRAM? (terminals, mainframes, microcomputers, etc.) Also indicate the types of operating systems you have used on these machines.

NOVA UNIVERSITY

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

Check one:
DATL _____
DAIS _____

APPLICATION

Mr.
Ms. Name _____
(last) *(first)* *(middle)*

Address _____ Phone _____
(street) *(city)* *(state-zip)*

Birth Date _____ Social Security No. _____

Place of FULL TIME Employment _____

Address _____ Phone _____
(street) *(city)* *(state-zip)*

Title of Position _____

Present Work Responsibilities _____

_____

Baccalaureate Degree _____
(institution) *(degree)* *(date)*

Master's Degree _____
(institution) *(degree)* *(date)*

Please enclose a check in the amount of $25 (application fee) payable to Nova University.

NOTE: Three letters of recommendation and Master's Degree transcript must be mailed directly to:

Admissions Office
Information Sciences
Nova University
3301 College Avenue
Fort Lauderdale, Florida 33314

_____
(signature)

Date of Application _____

GOAL STATEMENT

Please indicate below the exact nature of the work you expect to be involved in immediately after graduating from the program. Also indicate the nature of your long range goals (5-10 years after graduation).

How did you learn of this program? _____

_____

NOVA UNIVERSITY

RECOMMENDATION FOR ADMISSION TO THE

DOCTOR OF ARTS 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 recommendation forms are required.

TO THE EVALUATOR: The individual named above has made application to the Doctor of Arts program. One of the steps in the admissions process requires each applicant to obtain three 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 Doctor of Arts 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 and 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 _____ years. I have known him/her well _____, slightly _____.

10. In my opinion, the candidate's potential for success in a doctoral 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
Fort Lauderdale, Florida 33314

NOVA UNIVERSITY

RECOMMENDATION FOR ADMISSION TO THE

DOCTOR OF ARTS 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 recommendation forms are required.

TO THE EVALUATOR: The individual named above has made application to the Doctor of Arts program. One of the steps in the admissions process requires each applicant to obtain three 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 Doctor of Arts 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 and carrying out tasks	Low	Average	High
5. Emotional Control	Unstable	Usually well-balanced	Always well balanced
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