The College of Arts and Sciences was created in 1980 with the merging of three former independent colleges -- the College of Humanities, the College of Science and Mathematics and the College of Social and Behavioral Sciences. A faculty governance system for the new College of Arts and Sciences was designed and adopted by the faculty during the following year. Initially, the college was composed of sixteen departments and several interdisciplinary minors. Over the next ten years, one of the original units, the Department of Creative Arts, was reorganized into three separate academic units -- the Departments of Art, Music, and Dance and Theatre. In 1995, Communication Studies became the nineteenth department in the college and four years later, Social Work was approved for department status. During 2001-2002, this latter unit was transferred to the College of Health and Human Services and The Center for Professional and Applied Ethics and the Departments of Aerospace Studies and Military Science were transferred to the College of Arts and Sciences. Several interdisciplinary units were added to the college during the last decade including Interdisciplinary Honors, the Ph.D. in Public Policy, the M.A. in Liberal Studies, the M.A. in Gerontology and the B.A. in International Studies. Twenty-one departments and seven academic programs now comprise the Arts and Sciences family.

I. Introduction

The College of Arts and Sciences affects more students than any other college in the University. Its faculty offer most of the courses that satisfy University general education requirements, provide service courses for students enrolled in the professional colleges, teach most of the content classes taken by majors in Education, and are responsible for designing and offering the curriculum for approximately 7,000 undergraduate and 620 graduate students majoring in the Liberal Arts. Over the last decade, enrollment in the College has steadily grown. On average, Arts and Sciences units generate about 64 percent of the total student credit hours produced by the University and employ 54% of the University’s full-time faculty and approximately 57% of the part-time faculty.
In addition to these major teaching responsibilities, College faculty generated over $6.7 million in extramural funding during fiscal year 2002. Many Arts and Sciences faculty members have received national and international recognition for their research and creative activity. Three members of the college faculty have been recipients of the CASE/Carnegie Foundation for the Advancement of Teaching Professor of the Year Award, making the College of Arts and Sciences the only academic unit in the United States with more than one Professor of the Year winner on its faculty. The College faculty also provide important service contributions to a broad array of professional associations and public, nonprofit and private sector organizations, particularly in the Charlotte region.

In the following pages, the aspirations and goals of twenty-eight very diverse departments and interdisciplinary programs are integrated into the goals, priorities, missions and resource base of the University. The College plan does not summarize or include all the specialized goals and aspirations identified in the attached department and interdisciplinary program planning documents. Instead, it identifies commonalities among the units, goals that have the highest college-wide priority and specific action plans for achieving these goals during 2004-2009. Even though the College Academic Plan will establish the parameters for most funding and programmatic initiatives over the next few years, the College will remain alert and sensitive to new opportunities and changing circumstances. If appropriate, the College of Arts and Sciences will reassess and revisit the assumptions and initiatives presented below.

II. The Planning Process

In February 2002, Chairs and Program Directors in the College of Arts and Sciences were asked to modify and update their 2002-2007 Academic Plans. A new aspect of the planning process was the identification by each unit of three to five “stretch” goals, aspirations that would normally take more than one year to achieve and involve a serious risk of not being realized. Initial drafts of unit academic plans were submitted to the College office in April 2002. During August, the Dean responded to each unit plan in writing. Revised unit plans were resubmitted to the College in September. The revised unit plans comprise the collective foundation for the College Plan. The following document was reviewed and critiqued by department chairs and program directors before being submitted to the Provost.

III. Assumptions
The College of Arts and Sciences accepts the planning assumptions described in the Environment for the Academic Planning Process statement (included as Attachment 2 in the January 28, 2002 instructions for the Preparation of the 2004-2009 Academic Plan). The most fundamental assumptions on which the College’s 2009 Academic Plan is based are: UNC Charlotte must be prepared to accommodate increasingly large numbers of new, traditionally aged undergraduate students who will be seeking access to higher education during 2004-2009, and UNC Charlotte will be designated as a research University within ten years. The first assumption requires more effective and efficient teaching in first and second year undergraduate level courses, particularly in those disciplines with historically high D/F/W rates, and the second requires greater effort and ingenuity on the part of the faculty in the research/grant enterprise.

**Accommodating Large Numbers of New Undergraduate Students**

One of UNC Charlotte’s most immediate problems is providing the physical classroom space for the predicted flood of new undergraduate students who will enroll at UNC Charlotte during 2004-2009. Most of these new undergraduate students will be taught largely by Arts and Sciences faculty during their first two years on campus. Until buildings currently being planned are build and occupied, the UNC Charlotte physical plant will have to be used in an extremely efficient manner. Aside from limited office space, serious problems confronting the instructional program are the lack of instructional and research laboratory space, classrooms that can accommodate 100 or more students and “smart” classrooms. The above physical limitations are a particularly acute problem for Arts and Sciences faculty because they teach most of the large 1000/2000 level courses offered by the University. Another problem is the limited secretarial, laboratory/studio personnel and computer consultant support provided to faculty in selected units of the college. Faculty need more support personnel to help them teach the growing numbers of students who enroll in their classes, laboratories and studios.

At the same time that the University is coping with the above limitations, it is embarking on an ambitious revision of the general education program. In the College’s 2002-2007 Academic Plan, one of the “assumptions” listed in that document was that “a new general education program consisting of courses designed specifically for general education” would “replace the existing requirements.” This assumption became a reality during Spring 2002. Due to the efforts of the General Education Review Task Force chaired by Dr. Ed St. Clair, a new general education program, which is outlined below, was approved by the faculty on February 21, 2002. At the core of the new general education program is a cluster of twelve new Liberal Studies courses
designed to provide undergraduate students with a solid liberal arts education. As expressed in the Final Report of the General Education Task Force, “These courses examine the arts, literature, the Western historical and cultural tradition, global understanding, citizenship, ethics, issues of health, and issues of science, technology, and society.” Beginning with the Fall 2003 semester, entering students will be required to take four of these courses (12 semester hours). The Task Force also recommended that the University appoint an Associate Dean to administer the program. This recommendation was accepted. A search committee was appointed and following an internal search, Dr. Mark I. West was named the new Associate Dean for General Education.

Achieving Research University Status
In order to be designated as a research University, Arts and Sciences departments must continue to seek increasing amounts of federal funding. As additional graduate programs are added to the curriculum, particularly Ph.D.-level programs, federal support for research is necessary in order to support growing numbers of graduate students. Additionally, federal support raises the visibility of the University’s research efforts to a national level.

In the transition from Doctoral Intensive to Doctoral Extensive status, Arts and Sciences faculty will have to continue to focus on larger and more complex projects, the kind of projects that frequently require the creation of interdisciplinary research teams. This transition is already underway in parts of the College. Yasin Raja in the Department of Physics is working with Stuart Smith in Mechanical Engineering on a $1.68 million project funded by the Department of Defense to develop next-generation memory devices. Mark Clemens and Jian Zhang in Biology are working with Charles Lee and Robin Coger in Mechanical Engineering on a $2.2 million bioengineering award from NIH. Boyd Davis in English is working with Caroline Linse in the College of Education on a $668 thousand project funded by the U.S. Department of Education to increase the learning performance outcomes of children whose primary language is not English. Roz Michelson in Sociology is working with Linwood Cousins in Social Work on a $1.04 million intervention project funded by NSF that addresses parental involvement in the high school math and science course selection and placement process for African-American families.

IV. Vision and Mission
The vision and mission of the College of Arts and Sciences closely parallels that of the University. The College serves the Charlotte region and State of North Carolina and is engaged
in the discovery, dissemination, synthesis and application of knowledge. It provides for the educational, economic, social and cultural advancement of the people of North Carolina through on- and off-campus instructional programming; research and published scholarship; the development and presentation of creative work; and highly varied collaborations ranging from the artistic to the technical with public, nonprofit and private partners in the Charlotte metropolitan area, the state and the nation. The College accepts the proposition that UNC Charlotte has a special responsibility to build the intellectual capital of the Greater Charlotte area by supporting the research and doctoral needs of the region and the activities of the Charlotte Institute.

It is understood that the College of Arts and Sciences plays the dominant role in implementing the institution’s commitment to liberal education. Many units in Arts and Sciences consider their primary mission to be the promotion of effective citizenship, professional and ethical practices, and lifelong learning. Even though units in Arts and Sciences contribute in major ways to all of the themes articulated in the Campus Academic Plan, in terms of magnitude of effort and the number of faculty members involved, the themes most important to the College of Arts and Sciences are Liberal Education; Community and Regional Development; Children, Families, and Schools; Health Care and Health Policy; and International Understanding and Involvement. Arts and Sciences faculty increasingly contribute to the Business and Finance and Applied Sciences and Technology themes in important ways, but typically in partnership with the Belk College of Business, the William States Lee College of Engineering and the College of Information Technology.

V. Goals

As noted above, the College of Arts and Sciences 2004-2009 Academic Plan includes many “stretch” goals, initiatives that will take more than one year to achieve and successful outcomes are far from certain. The College Plan is organized around four major objectives: (1) Improve the Quality of the Undergraduate Experience at UNC Charlotte; (2) Expand the College’s Research Agenda; (3) Integrate Information Technologies into the College’s Instructional and Research Programming; and (4) Expand the College’s Inventory of New Undergraduate and Graduate Degree Programs.

During the process of developing the various department/program plans it became obvious that many Arts and Sciences faculty members are changing the way they think about and perform
their jobs at UNC Charlotte. With few exceptions, departments/programs in Arts and Sciences are articulating appropriate goals in the academic planning process. Faculty clearly acknowledge they will implement the new general education program, publish in high-quality journals, expand extramural grant activity, make greater use of technology in the instructional programs, reduce the D/F/W rates in introductory-level mathematics and science courses, teach more undergraduate students in large class formats and engage in more interdisciplinary teaching and research activities.

(1) Improve the Quality of the Undergraduate Experience

A major part of the above objective is to successfully implement the new general education program. In making the new program a reality, several issues need to be resolved. First, there must be sufficient seats available in the new Liberal Studies courses to ensure that all entering students are able to enroll in four required Liberal Studies courses during their first two years on campus. Second, the success of the new general education program depends in large part on the involvement of tenured and tenure-track faculty members in the teaching of the new Liberal Studies courses. It is essential that department chairs and other administrators not become too reliant on part-time faculty to offer these courses. Third, because the new Liberal Studies curriculum is not a traditional course of study, students transferring to UNC Charlotte from other Colleges and Universities will probably encounter some difficulties in transferring general education equivalents. Through practice and experience, the Admissions Office and the Associate Dean for General Education will need to determine which courses taught at other institutions will be considered as equivalents to the Liberal Studies courses. Fourth, the requirements set forth in the former general education program will continue to apply to all current students. Thus, there will be a necessity over the next four years to offer courses that can be employed to satisfy these former requirements. In some cases, new Liberal Studies courses may need to be approved for satisfying goals associated with the former general education program.

Specific action plans designed to improve the quality of the undergraduate experience are:

- Implement the new general education program which includes developing an appropriate number of new courses, scheduling a sufficient number of general education classes to allow students to satisfy degree requirements in a timely fashion and providing instructional technology support for faculty assigned to teach general education courses.
• Provide more advanced and specialized language instruction for academic programs with specific language requirements. Due to the restructuring of the language admission requirement, the Department of Languages and Culture Studies, in cooperation with other departments/colleges, are developing courses that satisfy special department/college needs. All units in the College of Arts and Sciences now have specific language requirements. The faculties in the other colleges will continue to be encouraged to require appropriate language instruction for their majors.

• Lower the D/F/W ratio in courses with historically high rates of student failure and low retention. In several of the introductory courses in Chemistry, Mathematics and Physics and Optical Science, the D/F/W ratio typically ranges from 40 to 65%. Significant progress has been made over the last two to three years in reducing this high attrition rate. For example, the D/F/W ratio in Chemistry 1251 has declined by over 16% and for engineering majors by approximately 23% between Fall 2000 and Fall 2001. The Mathematics Department has designed and implemented a Developmental Algebra/Math Study Skills course for students who demonstrate they are at risk on the Math 1100 placement test. This course, as well as other adjustments, has helped to lower the D/F/W rates in Math 1100 from over 40% to about 25%. A “stretch” goal of the Mathematics faculty is to reduce the D/F/W rate to about 25% in Math 1103, 1241 and 1242. This will be accomplished by making greater use of on-line tutoring and testing and discontinuing the practice of enrolling 200 and more students in introductory-level courses. A Physics and Optical Sciences Department “stretch” goal is to reduce through a variety of means the D/F/W rates in lower level Physics courses (1101, 1102, 1130, 2101 and 2102) from 40% to 20%.

• Expand the number of sections of Freshman Seminar that are scheduled during Fall semesters from nineteen to thirty in order to allow a higher percentage of first-year students to enroll in this course. Two separate studies of the Freshman Seminar course have found that participation in the Seminar course improves student retention rates. An important goal is to further involve full-time tenured and tenure-track faculty in the teaching of this course.

• Develop Freshman Learning Communities for students who plan to major in Anthropology, Biology, Chemistry, Dance and Theatre, History, Language and Culture Studies and Physics and Optical Sciences.
• Create at the department level opportunities for undergraduate students to work with faculty members on significant research, creative and service projects.

• Expand departmental honors programming and establish an Honors College. The Honors College will bring visibility and coordination to a broad array of existing activities designed to attract and serve UNC Charlotte’s most talented undergraduate students. These coordinated activities may include University Honors, Business Honors, Merit Scholarships, Teaching Fellows, Department Honors, Honors Societies, Honors in Residence and Honors Education Abroad.

• Increase the number of English 1103 sections offered each year in order to accelerate qualified students through a three-credit rather than six-credit requirement. (The active pursuit of this goal depends in large measure on the competence of incoming students.)

• Recognize and reward in annual reviews, promotion and tenure decisions and merit salary adjustments the efforts of faculty members who in measurable ways contribute to student retention and academic success.

(2) Expand and Improve Support of the College’s Research Agenda

The College’s second objective is to expand and support the research agenda, including both funded and non-funded faculty scholarship and creative activities. It is recognized that academic disciplines vary considerably in their potential to obtain extramural funding, but all units are encouraged to cooperate fully with the Office of Research Services and contribute to the effort to increase extramural funding over the next five years.

In order to achieve regional and national recognition as a research university and to more adequately serve the graduate-level needs of the Charlotte region, faculty in the College of Arts and Sciences have worked hard to increase research productivity. During 1998-2000, Arts and Sciences faculty published 482 refereed journal articles, 113 book chapters and 63 book-length monographs. Faculty members in the Fine Arts achieved recognition in their disciplines by participating in juried exhibitions, theatrical and musical performances and other creative activities.

Over the last two years (2001-2002), Arts and Sciences extramural funding has more than doubled, from $3.07 million to $6.72 million, and federal funding has increased more than three-fold, from $1.60 million to $5.33 million. In fiscal year 2002, Arts and Sciences accounted for 34 percent of the University’s overall external funding and 39 percent of its federal funding.
Seventy-nine percent of Arts and Sciences funding was from federal agencies. The excellent scholarly and creative productivity of the Arts and Sciences faculty is and will continue to be the major factor in UNC Charlotte’s improving research reputation, a reputation that helps the institution recruit highly-qualified faculty members and graduate students.

As noted above, during the transition from Doctoral Intensive to Doctoral Extensive status, demands will be placed on the College’s research-oriented faculty. Arts and Sciences faculty need to continue to focus attention and energy on large, complex projects that typically require interdisciplinary research teams. Faculty who have similar or complementary research interests need to meet and exchange information, to identify available resources or common research needs, to suggest opportunities for research centers or institutes and to foster and promote project team formation. A “project team” approach to extramural funding will focus some of our most productive researchers on “best” funding opportunities and create a vehicle for connecting junior faculty to funded projects early in their careers. The Office of Research Services and the College of Arts and Sciences Director of Sponsored Research are currently promoting the development of interdisciplinary research teams. In order to further promote and make possible large-scale interdisciplinary research, the institution also needs to plan and establish infrastructure to house, support and administer such grants, particularly in the social sciences which have had relatively little experience in managing such projects and no physical counterpart to the C.C. Cameron Research Building. As new buildings come online, the University must place a high priority on finding research surge space for the social sciences in order to fully realize the potential in this area.

A focus on large, interdisciplinary projects should not be our only approach to extramural funding. New faculty, particularly in those disciplines where ample sources of external funding exist, should be shown that proposal-writing is an expected activity, and to the extent possible, departments should incorporate proposal-writing into the faculty reward structure.

**Specific department/college action plans designed to expand and support the research agenda are:**

- Continue to approve where appropriate flexible faculty workload arrangements, fund the Reassignment of Duties Program and services provided by the College’s Director of Sponsored Research, promote the establishment of interdisciplinary research teams and provide matching resources for extramural awards that require institutional commitments.
• Significantly expand the number of faculty members participating in grant/contract activity, the number of grant/contract proposals submitted by faculty members, the number of awards received by college faculty and the value of those awards.

• Significantly increase the scholarly productivity of the college faculty in terms of the number of research papers/monographs published in high quality professional journals and by mainline publishers. An equivalent increase in creative work by fine arts faculty also is encouraged.

• Provide sufficient funding to keep graduate student stipends at competitive levels.

• Maintain the practice of assisting new faculty in the development of research programs through adequate start-up funding and faculty development programs.

• Establish interdisciplinary research teams in areas where UNC Charlotte and the College of Arts and Sciences faculty are involved in scholarship with a high potential for external funding.

• Establish an advanced astronomy and beam propagation teaching and research facility on the UNC Charlotte campus. Optics and astronomy are both areas of current faculty and student research in the Department of Physics and Optical Science. Establishment of a state-of-the-art telescope and observatory facility will allow faculty and students to conduct research projects using local facilities in addition to continuing their research programs that utilize off-campus facilities. Currently, students and faculty use facilities maintained by other universities and national organizations. This limited access to observing facilities is especially difficult for students because they do not gain sufficient hands-on experience with instrumentation as guests at other facilities. Hands-on instrumentation experience is a must for students in optics and astronomy in order for them to obtain employment and/or advance to higher degree programs. The Physics and Optical Sciences unit plans to obtain external funding (a NSF Laboratory Improvement grant to help fund this effort) to upgrade the telescope and purchase the new observing instrumentation.

• In order to promote scholarship, extramural funding, community service opportunities and high quality teaching establish the following Centers and Institutes:

  The Center for Applied Analysis and Computation. The Center (CAAC) would coordinate efforts to develop theoretical models and computational methodologies in areas of applied mathematics with potential application to modern industrial processes.
The main mission of the center is to leverage faculty expertise in the Department of Mathematics to become one of the leading centers in the country for conducting applied research and educating the next generation graduate students for industrial and academic careers. In responding to the demands of the changing economy at both the local and national level, the Mathematics Department has a well-balanced research faculty in applied and computational mathematics with emphasis on the mathematical modeling of industrial and business applications. Several faculty members who are expected to participate in the proposed center have already received international recognition as well as external funding from NSF, the Office of Naval Research (ONR), and the Air Force Office of Scientific Research (AFOSR).

*The Center for Applied Geographic Information Systems.* The CAGIS will bring together the disparate GIS teaching, research, and service functions from across campus. It will strengthen the Geography and Earth Sciences curriculum, support environmental policy and urban regional specialty areas in the Public Policy Ph.D. program, and advantage the proposed Ph.D. in Infrastructure and Environmental Systems. The synergy created by the Center will sustain UNC Charlotte’s reputation as the strongest GIS teaching program in North Carolina while enhancing and supporting increased research activity in this evolving technology.

*The Center for Academic, Professional and Technical Communication.* The Center for Academic, Professional and Technical Communication (CAPTC) will integrate writing-in-the-disciplines and oral communication activity on the UNC Charlotte campus, major components of the general education program. It will conduct assessments for oral and written communication requirements. Off campus, CAPTC will market documentation and usability testing and communication training (written and oral) to private, non-profit and public sector organizations in the Metrolina region of North Carolina. In going forward with the planning for CAPTC, the “research” basis and focus of the proposed center will have to be identified and explained. Also, the proposed off-campus mission of CAPTC overlaps in some important ways with the proposed mission of the Center for Applied Linguistics and Community Literacy (CALCL). During the planning process, the areas of potential overlap between CAPTC and CALCL need to be explored and the possibility of a combined venture investigated.
In collaboration with the College of Education establish The Center for Applied Linguistics and Community Literacy. The proposed Center offers the possibility of tying together several strands of English Department research, including ESL, literacy studies, curriculum design/review, the teaching of reading and writing, in-service work in schools, technical and professional writing, children’s literature, and creative writing, in order to develop broad-based proposals for community service and stimulate external funding. As a corollary to this research and outreach, the Center would also seek to sponsor a usability testing service to attract contracts from business and industry for evaluating instructions related to software products under development. Since the College of Education has plans to pursue a Center in Reading and Developmental Education, the English Department will explore the possibility of joining COE in a combined venture.

In collaboration with the College of Engineering establish an Institute for Biomedical Engineering Systems. This initiative is designed to take advantage of extraordinary opportunities in the area of Biomedical Engineering and is responsive to institutional goals in both health care and applied research. Biology and Engineering have already established very successful collaborative efforts, and this initiative is designed to build on those efforts. The proposed Institute will require research space for Biomedical Engineers in close proximity to Biology because of the need for collaboration and use of vivarium facilities.

In collaboration with the Carolinas Medical Center establish an NIH-Funded Comprehensive Cancer Center. This is a very “stretchy” goal, but one with potential for enormous gain. The vision is to initially provide institutional support to increase the Biology Department’s cancer-related research activities so that Biology can achieve the $3 million annual research funding threshold required to be eligible to apply for Comprehensive Cancer Center funding. The payoff is the substantial increase in federal funding both from the Cancer Center grant and from other grant support that will be developed in order to qualify for the application. In addition, designation of CMC as an NIH Comprehensive Cancer Center would add substantially to the prestige of the health care industry of the Charlotte region.

(3) Integrate Appropriate Information and Technology into the College’s
Instructional Programming

Technical and Development Support

The twenty-one departments that comprise the College of Arts and Sciences vary considerably in regard to the use of technology. While concentrations of advanced technologies continue to develop and strengthen in the areas of natural sciences, mathematics, and fine arts, the increasing use of technology by faculty in all departments threatens to overwhelm traditional models of support.

Historically, departments with high levels of technology utilization have hired computer consultants to assist their faculty in the implementation of discipline-specific technologies not supported by Computing Services. Because of proximity, these consultants soon came to fully support the department in their instructional technology needs.

In 2000, the College of Arts and Sciences began to hire computer consultants for those departments whose levels of technology utilization were not as concentrated, and therefore allowed for a single consultant to serve multiple departmental units. At that time, the guidelines proposed by Computing Services for instructional technology support began to shift “front-line” support to departmental support staff, ostensibly leaving centralized staff free to pursue research and the development of campus instructional technology infrastructure. At the same time, longstanding frustration with the quality of service provided by Computing Services resulted in Arts and Sciences departments endorsing the same objective -- a local support representative for each department who could eliminate the need for dependency on centralized support.

Two primary forces combine to make this distributed model of support unsustainable with current resources. First, the number of faculty needing support increases constantly. Second, as the average level of technology utilization among all faculty increases, elementary support needs saturate existing support resources and neutralize the ability of departmental specialists to provide adequate attention to specialized discipline-specific projects. Computer consultants who support a single department with high levels of technology utilization are quickly overwhelmed by the number of requests they receive for assistance. Furthermore, these elementary support tasks could be handled by support with considerably lower levels of expertise. Unless the support model changes, college computer consultants will require additional assistance (and significant resources) to handle the support for their departments. Computer consultants who
support multiple departments are still uncertain what services they should provide, but responding to all baseline support requests will quickly overwhelm these individuals.

In an attempt to address these challenges, the College of Arts and Sciences plans to establish Technology Solutions Teams. These teams will consist of departmental computer consultants, the Director of Instructional Technology and students from multiple disciplines. The task of the Technology Solutions Teams (TST) is to produce professional technology-based solutions for faculty and staff in the College of Arts and Sciences. Technology Solutions Team projects will be dependent upon a development process, culled from multiple disciplines, that includes distinct stages of analysis, design, development and implementation. Consultation with faculty as clients will enable the production of technology-based learning enhancements and multimedia tools and templates for both face-to-face and web-augmented learning environments.

Students will be members of the Technology Solutions Teams and work on projects within carefully identified parameters. The experiences gained by the student Technology Solutions Team members will be valuable when they enter the job market, and the energy, skills and perspective they bring to the development process will contribute to the outcomes generated.

As the Technology Solutions Teams begin to have success with faculty and departmental clients, the College of Arts and Sciences will simultaneously work with Information and Technology Services (ITS) to maximize the appropriate utilization of existing technical support resources. Arts and Sciences departments will identify services that fit into the Information and Technology Services model of support and plan for the migration of support from departmental staff to Information and Technology Services units.

In addition, Information and Technology Services must work with Arts and Sciences to develop a radically different approach to the support of technology. Fully centralized systems are not responsive enough to meet the day-to-day needs of faculty and staff. Fully distributed systems, while responsive to day-to-day needs, are often myopic in regards to long-term challenges. There is currently an either/or mentality to support that does not allow for the level of collaboration necessary for a successful endeavor. The College of Arts and Sciences will work with Information and Technology Services to develop a model of support that takes advantage of centralized support resources while maximizing the utility of local support.
Another area of concern is support for the Apple Macintosh platform. The departments of Art and Philosophy have significant concentrations of Apple machines and support has lagged behind that of Windows-based systems. It is very difficult to convince departments to utilize centralized support resources when in the past they have not been reliable. Although the response time for requests for troubleshooting assistance are often appropriate, there have been occasions when assistance to individual faculty members has been frustratingly slow. The formation of a user’s group with regular and frequent communication links to Information and Technology Services might help address this problem.

Physical Infrastructure
Computing, in general, has permeated most every aspect of academia. It is commonly known that current funding models struggle to meet the needs of departments for desktop workstations, specialized workgroup servers, and peripherals, not to mention software licensing. Highly technical departments such as the sciences and mathematics have individually begun to establish more significant technology infrastructure resources than those that served the entire campus only a decade ago.

Improving the technology infrastructure of UNC Charlotte and the College of Arts and Sciences will not be easy in a financial sense. When Arts and Sciences department chairs were asked several years ago to rank Information Technology needs within the context of competing needs, more “technology” was not at the top of spending priorities in most academic units. At that time, twelve of twenty department chairs specifically stated, and others implied, that new/replacement faculty positions and more operating funds were more important for their programs than enhanced instructional technology. Even though it is recognized that “smart classrooms” and instructional technology will be wonderful assets to the teaching program, at the department level, these goals tend to rank behind new faculty resources and enhanced operating budgets.

Current plans to implement fast wireless networks across campus represent one potential first step in the challenge of providing network connectivity for all classrooms on campus -- they should be implemented as quickly as is realistic. Portable computers and projection units remain in scarce supply for most faculty -- particularly in those departments that have not traditionally had need of budget allocations for technology. A task force might be assembled to consider possible methods of providing better classroom enhancement resources, whether they are fixed or portable, to Arts and Sciences faculty.
While plans are currently being considered to offer a portable computing device to all students on campus, the impact such plans might have on faculty have not been publicly discussed. The provision of a student computing device has been considered for its impact on student computer labs, but not much consideration has been given to the impact on the classroom. Unless faculty have an appropriate classroom computing environment, the potential pedagogical advantages of a student portable computing device will be minimized.

**Specific action plans designed to integrate Information Technologies into the College’s Instructional and Research Programming are:**

- Collaborate with Information and Technology Services to clearly define the roles of the dedicated Computer Consultants (consultants assigned to one department), distributed Computer Consultants (consultant assigned to serve faculty in two or more departments) and Information and Technology Services support staff. The focus should be on effective and efficient solutions for students and faculty and not on bureaucratic self-interest.
- Establish the Technology Solutions Teams. Project work will begin in Spring, 2003.
- Continue to improve the effectiveness of the Arts and Sciences Instructional Technology Center. Utilize the Instructional Technology Center, particularly in the establishment of the Technology Solution Teams.
- Collaborate with Information and Technology Services to improve faculty input into campus technology initiatives.
- Expand the number of College Computer Consultants serving the faculty and staff in Arts and Sciences.

**4) Expand the College’s Inventory of New Undergraduate and Graduate Degree Programs**

A major part of the planning at the department level is focused on the expansion of the college’s inventory of new undergraduate and graduate degree programs. It is acknowledged that UNC Charlotte does not have the array of academic programs necessary to serve properly the Charlotte metropolitan region or the State of North Carolina. However, due caution is necessary in planning new academic programs. There must be a demonstrated need for a new program; at least some faculty assets to support the new programming must be in place and sufficient funding to initiate the new programming must be available.
Proposed actions to expand graduate programming in the College are:

- Implement the Ph.D. in Optical Science and Engineering, the Ph.D. in Curriculum and Instruction and the Ph.D. in Infrastructure and Environmental Systems.
- Implement the M.S. in Optics, the M.A. in Arts Administration and the M.A. in Religious Studies.
- Seek permission to implement the M.S. in Mathematical Finance. This program is designed to prepare graduates for careers in business or research in the financial sector. Increasingly, the principles of finance are being combined with advanced mathematical structures to form useful financial products, strategies, and models that are tested and implemented with the use of advanced quantitative techniques. These products are an integral part of the overall financial activity in several areas: financial instrument development and usage, investment, and risk analysis. The program is designed for graduates in science, engineering, business, economics, and finance with a strong mathematical background who wish to pursue high-tech careers in the financial industry or in government.
- Seek permission to plan a Ph.D. in Health Psychology. Health psychology is a rapidly emerging specialty area of psychology, which applies psychological principles and knowledge from related disciplines to the understanding and promotion of health in individuals, families, organizations and communities. The Interdisciplinary Ph.D. in Health Psychology will focus on research and practice emphasizing the interactions among three main domains of health -- biological, psychological, and social/community. The program will address these domains across the life cycle, addressing health issues in Gerontology and among children and families with special needs. All students will take core courses in research methodology, behavior change, and factors that influence health. Students will then develop a program of study to focus on a particular population and content. Students interested in Gerontology, for example, will work closely with Gerontology Program faculty in Nursing, Sociology, Anthropology, Psychology, Social Work, Public Policy and Political Science; whereas those interested in children and families with special needs will work closely with faculty in Special Education, Nursing and Social Work.
- Seek permission to plan a Ph.D. in Applied Geography. The proposed Ph.D. in geographic analysis will emphasize the application of geographically centered research methods, especially GIS and spatial statistics, to the investigation and analysis of complex geographic phenomena. Using urban and regional scales as organizing frameworks, the doctoral
research and teaching clusters will include human spatial behavior, planning and policy, resource and environmental management, and human response to changing environments. Geography faculty already have active research programs in these areas, and the Ph.D. in geographic analysis would enable the faculty to increase their external funding as well as expand the scope of current research programs. The proposed program represents an extension and strengthening of current research streams and graduate program strengths. The proposed doctoral program will meet the need for geographers with graduate studies in advanced analytical techniques and the application of these tools in urban and regional problem-solving. There is a strong demand for applications-oriented Ph.D. geographers in academia, government, and private sector organizations.

• Seek permission to plan a Ph.D. in History. The Department of History plans to serve a distinct constituency within the State of North Carolina -- individuals preparing for careers at institutions that are more oriented toward teaching than research but seek to employ professionally trained historians. Graduates of the proposed doctoral program will be trained for careers at community and small liberal arts colleges, places where historians are responsible for teaching a diverse range of courses including surveys in U.S. and World History and selected upper-division courses. The broad content area training will be coupled with in-service pedagogical training to help students prepare for the realities of the classroom. The History Department has collected data that strongly suggest there is a need in North Carolina for this kind of non-traditional doctoral program.

• Seek permission to plan an M.A. in Ethics. In the last decade, philosophers have increasingly focused on interdisciplinary collaboration and applied knowledge. Being sought after as a consultant on issues of ethics and critical thinking is now viewed as a measurement of career success. The Philosophy department faculty already teach an array of graduate courses that serve a variety of interdisciplinary needs. For graduate students in Biology, Philosophy offers a course in “The Genetic Revolution”; for graduate students in Education, “Philosophy of Education”; for graduate students in Public Policy, “Health, Law, and Ethics”; for graduate students in Health Administration, “Health Care Ethics”; and for graduate students in Liberal Studies, “The Idea of Human Nature” and “Language and Violence.” An M.A. in Ethics would enable the Philosophy Department to coordinate and systematize its work in these areas. Instead of the above courses being services offered individually to particular departments, they would become the foundation for a focused masters-level program.
• Seek permission to plan an MFA in Creative Writing. There is currently no program at UNC Charlotte that satisfies student and community interest in the writing of fiction, poetry, screenplays, literature for children, and dramatic literature for publication or performance. Queens College has just inaugurated such a program, and similar programs exist on other UNC campuses in the region. The Charlotte area has a population more than large enough to provide the demand necessary to support an MFA in Creative Writing. By seeking to meet that demand, the University strengthens its presence in and support of the community. A strong first indicator both of the demand and the potential for enhanced local involvement is the recent successful negotiation between the English Department and the Public Library of Charlotte and Mecklenburg County to sponsor jointly a writer of children’s literature who would provide creative writing courses on campus as well as literary programs for the Library.

• Implement the Public History Concentration within the M.A. in History and the Great Books track within the M.A. in Liberal Studies.

Proposed actions to expand undergraduate programming in the College are:

• Plan and establish a B.A. in Latin American Studies. The Latin American Studies program will focus on an in-depth understanding of one area of the world, combining competency in Spanish and/or Portuguese with the intensive study of Latin American culture, history, and society. Currently, fourteen Latin Americanists teach in four different departments in the College of Arts and Sciences. Of these, seven faculty have been hired since 1998: three in the Department of Languages and Culture Studies, two in the Department of History, and one each in the Departments of Political Science and Sociology and Anthropology. The list of courses on Latin American subjects has expanded along with the growth of the faculty. The current Undergraduate Catalog lists twenty-one courses on Latin American Studies (not counting language courses). The Department of Languages and Culture Studies began to offer Portuguese at the beginning of 2001-2002, and that department now has two full-time faculty who can staff beginning and intermediate courses in that language.

• Plan and establish a B.S. in Meteorology and develop a Meteorology Observation Station at UNC Charlotte. The establishment of the B.S. in Meteorology will strengthen the atmospheric component of the Earth Sciences program and probably increase by about 20% the number of Earth Sciences majors. An accredited meteorology degree is one of two undergraduate programs supported by the Air Force ROTC with full five-year scholarships.
• Plan and implement a new undergraduate degree option for students who want to major in an Applied Mathematics for Business option. The traditional undergraduate mathematics degree is designed for students who want to pursue an academic career or as preparation for graduate work. However, business career prospects are quite good for mathematics trained, analytically strong students, especially if they have complementary computer and communication skills. The Applied Mathematics for Business option will provide a Liberal Arts alternative to an undergraduate degree in Business.

• Plan and implement a new undergraduate degree option for students who want to focus on Organizational Sociology (Group Processes, Organizational Sociology, Sociology of Work, Sociology of Occupations and Professions, etc.). The new degree option or concentration will provide a Liberal Arts alternative to an undergraduate degree in Business.

• Reformulate the undergraduate curriculum of the Department of African-American and African Studies into a comparative interdisciplinary program encompassing Africa, the United States and the Caribbean and Latin America.

• Implement within the English Department undergraduate minors in writing and children’s literature and literacy.

There are several other potential new graduate degree programs that may be planned and implemented during 2004-2009. All of these potential programs are in a very early planning stage. It is likely that some of these potential graduate programs will surface in a more prominent way in the next academic planning cycle.

• A Ph.D. in Organizational Sciences. Faculty in several departments including Communication Studies, Management, Psychology and Sociology have had preliminary discussions concerning the establishment of an interdisciplinary Ph.D. program focusing on issues in organizational sciences—Management, I/O Psychology, Organizational Sociology, Public Relations, etc. The specific structure and focus of such a degree program have not been determined but given the small pool of Ph.D. candidates available for positions in the Academy in some of these disciplinary areas, there appears to be a need for such a program.

• A Ph.D. in Molecular and Nanoscale Science and Technology. This initiative is proposed by the Chemistry Department and described as interdisciplinary in nature and more applied than a traditional Ph.D. program in Chemistry or Materials Science. The need and justification for a Nanoscale Science and Nanotechnology Ph.D. program are
fairly obvious. A significant fraction of the nation’s economy is and will be driven by miniaturization. An understanding of molecular level bonding interactions and processes is fundamental to the miniaturization process. Thus, Chemistry has an important role to play in nanoscale science and it would be a good “niche” Ph.D. program for UNC Charlotte. The above notwithstanding, the Chemistry unit must take several prerequisite steps before submitting official Permission to Plan and Permission to Implement documents. The unit must integrate an expanded emphasis on molecular and nanoscale science in its current graduate and undergraduate programming. It was noted in the Chemistry Academic Plan that the proposed Ph.D. program would have a positive impact on the current M.A. in Chemistry. This observation needs to be turned on its head; the M.A. in Chemistry needs to become more focused so it supports the proposed Nanoscale Science Ph.D. program. Faculty recruited into the department over the next few years must be able to support the teaching and research activities of the molecular/nanoscale science initiative and substantially increase extramural funding in the department’s new area of specialization. In other words, Chemistry will have to redefine itself in much the same way that the Departments of Biology and Physics and Optical Science redefined themselves over a period of years (in the case of Physics over a decade) in order to achieve the focus, the faculty base and the funding potential to support a Ph.D. in Molecular and Nanoscience. There are faculty members from other units who will play supporting roles in the proposed initiative, thus the proposed Ph.D. program is interdisciplinary in nature. But the core of the program will be the responsibility of the Chemistry unit. As a consequence, a considerable amount of rethinking and refocusing of current Chemistry programming and recruitment priorities will be critically important aspects of the planning for a new Ph.D. in Molecular and Nanoscale Science and Technology. Also, it should be noted that there may not be other programs in the state identified as Molecular and Nanoscale Science, but there may be Ph.D. programs that currently have students studying in this area of specialization. Before going forward with any Permission to Plan document, the status of Ph.D. programming in the state on any aspect of Molecular and Nanoscale Science should be carefully investigated and analyzed.

- A Masters of Music Education. The Department of Music has conducted feasibility studies and identified a high level of interest in the M.ME. among public school Music teachers in the Southern Piedmont area of North Carolina. This interest will be
reaffirmed during 2002-2003 and further planning for the Masters in Music Education initiated.

- An M. A. in Latin American Studies. Following the establishment of a B.A. in Latin American Studies, the next step is the development of a M.A. in the same area. This interdisciplinary degree program would be the first of its kind in the state of North Carolina, and would be modeled after existing successful programs such as the one at the University of California-Los Angeles. The program would attract students interested in a career in education, government, or public service. This graduate program would share the administrative structure and many of the resources allocated to the undergraduate program in Latin American Studies, and draw upon existing resources in the M.A. programs in History and Spanish.

- An MFA in Studio Art. The MFA is a terminal degree in studio art and is preparatory to college level-teaching and professional studio practice. The degree would be offered only in those areas where there is adequate physical space and faculty resources. The Art Department has received encouragement from several local arts institutions including the McColl Center for Visual Art (formerly the Tryon Center), the Arts and Science Council, The Light Factory, and the Mint Museum of Art to pursue the creation of a terminal degree in studio arts. As part of their charge, these institutions want to create a community of artists in Charlotte and view the MFA as an integral step in creating a cohort of committed practitioners who will enhance the cultural climate of the Charlotte community. There are some barriers to the successful implementation of the MFA degree, particularly the financial and space resources necessary to accommodate a graduate program in studio arts.

- Plan and implement a B.A. in Japanese. Since 1994, Japanese enrollment at UNC Charlotte has increased more than five times, from 51 to 270 students during 2001-2002. In Spring 2002, Japanese language enrollment at UNC Charlotte surpassed enrollments at all of the other universities in North Carolina. UNC Charlotte’s Japanese program enrolled 50 more students than its nearest competitor, UNC Chapel Hill. Although the B.A. in Japanese probably will not be a high-enrollment program, evidence is clear that there is sufficient interest in Japanese study to justify this curriculum option.