THE UNIVERSITY OF NORTH CAROLINA

2005 REVIEW OF ACADEMIC DEGREE PROGRAM PRODUCTIVITY

A Biennial Report

October 2005

Executive Summary

The UNC Board of Governors has the statutory responsibility to review academic programs biennially to identify those programs that are of low productivity or low priority, or are unnecessarily redundant. These reviews complement institutional self-studies for accreditation and professional accreditation for various disciplines. As a result of academic program review, administrators can decide to strengthen programs, to consolidate programs, to initiate alternative strategies such as distance learning to improve productivity, to identify programs that will benefit from collaboration and the consolidation of resources, or to discontinue programs that are not productive. The Board's Committee on Educational Planning, Policies, and Programs developed productivity criteria and guidelines for identifying programs for productivity review. These criteria are:

- Bachelor's degree programs: the number of degrees awarded in the last two years is 19 or fewer—unless upper division enrollment in the most recent year exceeds 25, or degrees awarded in the most recent year exceed 10.

- Terminal master's degrees: the number of degrees awarded in the last two years is 15 or fewer—unless enrollment in the most recent year exceeds 22, or degrees awarded exceed 9. Ed.S. and CAS programs: the number of certificates awarded in the last two years is 15 or fewer—unless enrollment in the most recent year exceeds 9.

- Doctoral degree programs: the number of degrees awarded in the last two years is 5 or fewer—unless enrollment in the most recent year exceeds 18, or the number of degrees awarded in the most recent year exceeds 2.

- First professional degree programs (medicine, dentistry, veterinary medicine, pharmacy and law): The number of degrees awarded in the last two years is 30 or fewer—unless enrollment in the most recent year exceeds 30, or the number of degrees awarded in the most recent year exceeds 15.

The 2005 process, the sixth review since 1995, identified 277 programs (out of 1,948) that met the board's criteria for review. Of these, 192 were reviewed at the campus level but were exempted from review at the system level (*e.g.*, undergraduate academic core programs, interdisciplinary programs that rely on courses from other programs, some health sciences programs, and teacher education programs that had enrollments between 2000 and 2004). The remaining 85 programs were reviewed at the campus level with campus responses reviewed by UNC-OP Academic Affairs staff. In addition, some campuses reviewed other academic degree programs with respect to productivity, institutional priorities, and unnecessary duplication. Any resulting campus recommendations for discontinuation of programs reviewed at the campus level are also included in the following list of proposed discontinuations.

The programs were reviewed not only in terms of enrollments and degree productivity, but also in terms of the appropriate balance of available resources against (1) the obligation to respond to the demands of society for certain kinds of employees, (2)

program costs, and (3) considerations of the broader responsibilities of the university community to society and the duty to maintain the strength and vitality of that community. Reasons for retaining a program include: centrality to the institutional mission, support provided for other necessary programs, high societal need, provision of access and opportunity for underrepresented groups, maintaining institutional program diversity, regional uniqueness and relevance of the program, lack of any significant savings for program elimination, and recent developments that may lead to increased enrollments in the future.

As a result of this review process, UNC constituent institutions and UNC-OP concur in recommending to the Board of Governors the discontinuation of the following 29 degrees:

Degree Program			Institution
13.1001	Habilitative Science	BS	ASU
13.1314	Health & Physical Education	MA	ASU
52.0601	Managerial Economics	BS	FSU
54.0101	History	MA	FSU
13.1001	Special Education	BS	NCA&TSU
13.1203	Middle Grades Education	MS	NCA&TSU
13.1305	English, Secondary Education	BS	NCA&TSU
13.1311	Mathematics, Secondary Education	BS	NCA&TSU
13.1314	Health & Physical Education	BS	NCA&TSU
13.1322	Biology, Secondary Education^	BS	NCA&TSU
13.1322	Biology, Secondary Education*	MS	NCA&TSU
13.1323	Chemistry, Secondary Education^	BS	NCA&TSU
13.1323	Chemistry, Secondary Education*	MS	NCA&TSU
13.1328	History, Secondary Education	BS	NCA&TSU
13.1329	Physics, Secondary Education^	BS	NCA&TSU
14.1201	Engineering Physics*	BS	NCA&TSU
31.0301	Recreation Administration	BS	NCA&TSU
13.1308	Family & Consumer Sci. Education	BS	NCCU
13.1308	Family & Consumer Sci. Education	MS	NCCU
13.1317	Sociology, Teacher Education	MA	NCSU
13.1202	Elementary Education*	MEd	UNCG
13.1307	School Health	BS	UNCG
13.1311	Mathematics Education*	MEd	UNCG
13.1328	History Education*	MEd	UNCG
13.1331	Communication Studies Education	BA	UNCG
13.1329	Physics, Secondary Education	BA	UNCW
13.1329	Physics, Secondary Education	BS	UNCW
05.0202	Cherokee Studies*	MA	WCU
13.0501	Instructional Technology Spec.*	MAEd	WCU

Programs marked with "*" will be merged into other existing degree programs. Programs marked "^" will be combined into a new comprehensive secondary education science program that NCA&TSU will request the Board of Governors to authorize.

2005 REVIEW OF ACADEMIC DEGREE PROGRAM PRODUCTIVITY

I. Academic Program Review

The Board of Governors of the University of North Carolina has the responsibility to "determine the functions, educational activities, and academic programs of the constituent institutions" [G.S. 116-11(3)]. The primary purpose of reviewing academic programs is to improve their quality. Academic program reviews are one component of a comprehensive and ongoing process to assess institutional effectiveness. The Office of the President regularly surveys students and other constituents and visits each campus to discuss quantitative and qualitative indicators of institutional performance and strategic plans for improvement. Low producing programs are reviewed biennially at both the system-level and the campus-level. The University also reviews programs across the system by academic discipline to determine if there are systemic trends that need to be addressed. These reviews complement institutional self-studies for accreditation and professional accreditation for various disciplines. As a result of academic program review, administrators can decide to strengthen programs, to consolidate programs, to initiate alternative strategies such as distance learning to improve productivity, to identify programs that will benefit from collaboration and the consolidation of resources, or to discontinue programs that are not productive. The review of existing program quality informs the planning of new academic programs. The academic program review process is pivotal to the implementation of the strategic initiatives of the University to increase access, to develop educational programs that are responsive to the needs of the State, to continue to develop intellectual capital, and to provide a foundation for the creation and transformation of new knowledge.

University-wide and institutional academic program reviews are designed to strengthen academic programs and improve the quality of education. On a biennial basis, the university identifies programs that are characterized by low enrollments and low numbers of degrees conferred. The first such review was completed in 1995, the second was completed in October 1997, the third was completed in October 1999, the fourth was completed in September 2001, and the fifth was completed in October 2003. The goal of increasing productivity in the delivery of programs and services reflects both fiscal reality and the need for good management practices in higher education. In the Long-Range Plan for 2000-2005, the UNC Board of Governors asserted its principles for academic program development:

> Good management requires the application of priorities and the judicious allocation of resources. Academic programs and course offerings must be kept up-to-date and new programs and courses developed in response to legitimate needs, but the counterpart of change is the discontinuation of programs no longer needed. Low quality, low productivity, and low priority programs must be eliminated in order to redirect resources to higher needs and priorities.

Academic program planning within the University is designed to ensure the integrity of each institutional mission and to provide a balance and diversity of programs within the University as a whole. Public universities exist primarily to serve the educational needs

of citizens. This purpose presupposes wide opportunity and reasonable geographic accessibility. The University engages in academic program review to make certain that the constituent institutions are responsive to genuine needs and equally responsive in identifying resources that can be used to make certain that offerings are current, consistent with priorities, and used judiciously to respond to new developments in fields of inquiry and research.

North Carolina General Assembly Mandate

The 1993 Session of the North Carolina General Assembly passed legislation to implement a Government Performance Audit Committee's recommendations for a review of all academic degree programs in the University of North Carolina. Chapter 407, Section 1 of Senate Bill 393, 1993 Session Laws (GPAC/UNC Review Plan) mandates the following actions:

> Section 1. The Board of Governors of the University of North Carolina shall review all academic degree programs and research and public service activities to identify those programs and activities that are of **low productivity or low priority, or are unnecessarily redundant**. The Board shall develop specific criteria for these reviews, and shall develop a process to review academic degree program productivity biennially. The Board's review shall **emphasize identification of processes and resources to strengthen programs that are or can reasonably be made productive**. With regard to those **programs that are not and cannot be made productive**, if any, the Board shall consider **eliminating** those programs in a manner that does not negatively impact upon the availability of educational opportunities for North Carolina citizens. In making its determination, the Board shall give consideration to the value of maintaining racial and geographic diversity and to **assuring reasonable access** for students who live off campus.

The act also amended Section 2, General Statutes 116-11(3), which outlines the Board of Governors' responsibilities with respect to academic programs and degrees awarded by adding the following provision:

> The Board shall review the productivity of academic degree programs every two years, using criteria specifically developed to determine program productivity.

Reviews of academic programs were conducted in 1995, 1997, 1999, 2001, 2003, and 2005 applying criteria and guidelines developed by the Board of Governors' Committee on Educational Planning, Policies, and Programs.

Even before the enactment of the 1993 legislation calling for academic program productivity reviews, the Board of Governors had routinely conducted biennial reviews of low productivity programs to identify candidates for discontinuation. However, in response to this legislation, the Board of Governors formalized the process. The Board's Committee on Educational Planning, Policies, and Programs developed productivity criteria and guidelines for identifying programs for review. These criteria are:

- Bachelor's degree programs: the number of degrees awarded in the last two years is 19 or fewer—unless upper division enrollment in the most recent year exceeds 25, or degrees awarded in the most recent year exceed 10.
- Terminal master's degrees: the number of degrees awarded in the last two years is 15 or fewer—unless enrollment in the most recent year exceeds 22, or degrees awarded exceed 9. Ed.S. and CAS programs: the number of certificates awarded in the last two years is 15 or fewer—unless enrollment in the most recent year exceeds 9.
- Doctoral degree programs: the number of degrees awarded in the last two years is 5 or fewer—unless enrollment in the most recent year exceeds 18, or the number of degrees awarded in the most recent year exceeds 2.
- First professional degree programs (medicine, dentistry, veterinary medicine, pharmacy and law): The number of degrees awarded in the last two years is 30 or fewer—unless enrollment in the most recent year exceeds 30, or the number of degrees awarded in the most recent year exceeds 15.

The programs were reviewed not only in terms of enrollments and degree productivity, but also in terms of such factors as quality, cost, occupational demand, and centrality to the institutional mission. In addition, some campuses reviewed other academic degree programs with respect to productivity, institutional priorities, and unnecessary duplication.

As a result of campus and system-level reviews, the Board of Governors has approved the discontinuation of 479 academic degree programs across the university, as indicated in Appendix C. On approval of the 2005 recommendations, UNC campuses will remove 29 programs from the Academic Program Inventory, 18 of which will be discontinued, and 11 will be consolidated into other programs. With the discontinuation of the 29 programs as recommended in this study (and an additional discontinuation requested by UNC Greensboro this month), the total number of degree programs discontinued since 1972 will be 509. It is interesting to note that the number of degree programs discontinued since 1972 comes close to the number established (572).

II. UNC Academic Program Productivity and Degrees Conferred

Currently, the University of North Carolina offers 1,948 academic degree programs at the baccalaureate (1,038), master's (698), intermediate (13), doctoral (192), and professional (7) levels, and each is listed on the university's Academic Program Inventory. Between July 1, 1972 and June 30, 2005, the Board of Governors approved the establishment of 518 new academic degree programs. Over the 33-year period, that represents an average of less than one new degree program per institution per year. As noted in the Government Performance Audit Committee report in December 1992, "UNC planning procedures instituted since 1976 have been effective in preventing excessive proliferation of new programs."

Table 1 summarizes by discipline division the new degree programs established in the University since 1972. An analysis of those programs illustrates the emphasis on professional development as well as the emergence of programs in technological areas.

More than one half (304) of the new programs have been in six discipline divisions: Education (96), Health Professions (66), Public Affairs and Services, principally public administration, criminal justice, and social work (40), Engineering (37), Biological Sciences (33), and Business and Management (32). The Social Sciences (26), Computer and Information Sciences (24), and the Physical Sciences (22) account for more than one third of the remainder. This program development reflects clearly the greater student interest in degree programs that are perceived to have more explicit career-preparation goals.

Table 1
Summary of New Programs Established by the Board of Governors for Constituent Institutions of the University of North Carolina by Program Area and Level, July 1, 1972 - September 30, 2005

Program Area	Degree Level				
	Bachelors	**Masters**	**Professional**	**Doctoral**	**Total**
Agriculture & Natural Resources	3	3			6
Architecture & Environmental Design	3	1		1	5
Area Studies	11	2			8
Biological Sciences	6	11		17	33
Business and Management	15	19		2	32
Communications	11	2		2	14
Computer & Information Sciences	12	13		1	24
Education	34	60		10	96
Engineering	19	14		9	37
Fine and Applied Arts	16	10		1	24
Foreign Languages	5	4			6
Health Professions	27	25	3	17	66
Home Economics	3	4			7
Law					
Letters	8	5		2	15
Library Science				1	1
Mathematics	4	6		1	10
Physical Sciences	14	10		2	22
Psychology	3	5		1	9
Public Affairs & Services	24	22		3	40
Social Sciences	14	11		3	26
Interdisciplinary Studies	22	11		4	37
Total	**254**	**238**	**3**	**77**	**572**

The same picture emerges from an analysis of degrees conferred by the University in recent years. Degree productivity shown in Table 2 also reflects the program development outlined in Table 1. The six discipline divisions which account for more than half of the new degree programs established since 1972 also accounted for 53 percent (14,101 of 26,441) of the baccalaureate degrees and 71 percent (5,932 of 8,311) of the master's degrees conferred by the University in 2003-2004. The attention given to those programs experiencing low rates of productivity should not obscure the fact that the overwhelming majority of UNC academic degree programs are very productive.

Table 2
Degrees Conferred in Approved Programs Offered by the University of North Carolina, by Discipline, 2003-2004

Field of Study	B	M	D	FP	Total
Agriculture & Natural Sciences	559	132	43		734
Architecture & Envir. Design	162	75	6		243
Area Studies	214	22			236
Biological Sciences	1,460	199	155		1,814
Business & Management	4,825	1,457	6		6,288
Communications	1,790	42	19		1,851
Computer & Information Sci.	772	489	19		1,280
Education	2,254	2,066	172		4,492
Engineering	2,072	659	129		2,860
Fine & Applied Arts	1,346	192	16		1,554
Foreign Languages	251	49	29		329
Health Professions	1,692	946	45	515	3,198
Home Economics	419	49	2		470
Law				321	321
Letters	1,292	258	29		1,579
Library Science		276	5		281
Mathematics	275	106	37		418
Physical Sciences	532	152	82		766
Psychology	1,536	131	48		1,715
Public Affairs & Services	1,798	605	21		2,424
Social Sciences	2,983	257	76		3,316
Interdisciplinary Studies	209	149	11		369
All Disciplines	**26,441**	**8,311**	**950**	**836**	**36,538**

III. Programs Reviewed by the UNC Office of the President and by the UNC Chief Academic Officers in 2005

The number of bachelor's, master's, intermediate, first professional and doctoral programs that failed to meet the low productivity criteria in the 2005 review totaled 277 out of 1,948 active academic degree programs (14.2%). In order to conduct meaningful reviews with recommendations to strengthen, consolidate or discontinue programs, it was necessary to divide the total into programs that would be reviewed at the system level and those that needed to be monitored or reviewed at the campus level by the Chief Academic Officers and administrative staff. To facilitate this process, several categories of programs were exempted from the 2005 system review.

A. Programs Exempted from 2003 System Review

At the **undergraduate level**, the Academic Affairs division of the Office of the President recognizes the importance of a basic core of academic disciplines that each constituent institution (except the North Carolina School of the Arts) is expected to offer and these were excluded from the 2001 program review. The Academic Core consists of programs in the fine arts, humanities, mathematics, computer sciences, sciences, and social

sciences. These disciplines represent many areas of necessary program duplication among the constituent institutions at the undergraduate level and they should be routinely monitored and reviewed at the campus level. The UNC program review did not include interdisciplinary programs, area studies, and special health related programs such as medical technology for which the majority of courses are supplied by other disciplines. It also exempted programs that consisted largely of courses supplied by other disciplines (e.g., medical technology, area studies, and interdisciplinary studies). The most obvious measure of low productivity is low course enrollment. If a program has a limited number of majors, but those majors are taking most of their courses from other programs (and thus raising enrollment in those courses), they are not actually unproductive. In fact, to eliminate such majors would not save significant money (the courses would continue to be offered) and might actually be counter-productive by reducing enrollment in some courses and reducing the number of program choices open to students.

The UNC system-level review did not include area studies or foreign language programs. Intermediate and Certificate programs as well as Associate Degree Programs were exempt. Many teacher education programs at the undergraduate and graduate level fall below the productivity standards. Due to the demand for teachers and the plans for UNC to expand the number of teachers it produces, most education programs at the undergraduate and graduate level are exempt from review **except** those that had no enrollment between 2000 and 2004. Doctoral programs in medical centers were exempt since they were reviewed in the last review. Recently established programs that have not been in place long enough to attract sufficient enrollments and produce graduates are not subject to review.

B. Guidelines and Criteria for Reviewing Programs

The UNC Office of the President required each campus to submit either a comprehensive program review or a request for discontinuation or consolidation for low producing programs. The *Criteria for Program Review and Evaluation* form is included as Appendix A of this document. Applying these criteria, 85 programs were identified for system review. These are considerably fewer programs than were subject to review in the first review in 1995 (270). This steady reduction in the number of low producing programs reflects the success of the previous reviews.

Campuses were asked to submit a report documenting the centrality of the program to the university's mission, the quality of the program, faculty resources, facilities, and equipment. The components of this critical review included: 1) careful review of the evidence of need for graduates; 2) evidence of student demand, including examination of enrollments in comparable programs at other institutions, and likelihood the program can meet productivity criteria in a reasonable number of years; 3) evidence that the program is not already conveniently available at another UNC (or private) institution either within the region or via distance education; 4) evidence that the institution is capable, or can become capable, of offering a quality program; 5) the number of low productivity programs currently being offered by the institution; 6) the institution's track record in accurately projecting enrollments in other recently authorized programs; and, 7) the estimated cost of the proposed program when compared to the probable benefits.

This review required UNC chancellors and chief academic officers to make recommendations about a given program. Recommendations for continuation were required to include an explanation of past enrollment or productivity, expectations for future enrollments, and the importance of the program to the educational mission of the institution. If the institution recommended continuing the program, UNC Office of the President staff examined the institution's rationale to determine whether or not to support its recommendation. Strategies to strengthen programs can include plans for improved recruitment, retention, persistence plans, time-to-degree strategies, distance learning opportunities, specific discipline reviews, or offering the program through the Academic Common Market where it qualifies.

IV. Results of the 2005 Review: Recommendations

Comments and recommendations concerning the 85 programs reviewed at the system level are included in Appendix B. UNC institutions used this review process as an opportunity to review other degree programs not identified by UNC-OP for system-level review. As a result of this campus-level review, 14 programs were recommended for discontinuation that were not included in the system-level review. Thus, Appendix B contains review recommendations for at total of 99 degree programs. UNC-OP Academic Affairs staff recommendations are consistent with the recommendations from the chancellors and chief academic officers. The UNC Board of Governors must authorize program discontinuation.

No new students will be admitted after January 2006 into any program approved for discontinuation. Unless they choose to change majors, juniors and seniors already enrolled in a major program must be permitted to complete the program within a reasonable period of time. Unless the institution has requested an earlier date, all discontinued programs must be phased out by July 1, 2008. This should allow all currently enrolled majors who choose to continue in a program to complete it. Those degree programs in which there are no majors currently enrolled will be discontinued effective February 1, 2006.

Table 3
Academic Degree Programs Proposed for Discontinuation by UNC Constituent Institutions

Degree Program			Institution
13.1001	Habilitative Science	BS	ASU
13.1314	Health & Physical Education	MA	ASU
52.0601	Managerial Economics	BS	FSU
54.0101	History	MA	FSU
13.1001	Special Education	BS	NCA&TSU
13.1203	Middle Grades Education	MS	NCA&TSU
13.1305	English, Secondary Education	BS	NCA&TSU
13.1311	Mathematics, Secondary Education	BS	NCA&TSU
13.1314	Health & Physical Education	BS	NCA&TSU
13.1322	Biology, Secondary Education^	BS	NCA&TSU
13.1322	Biology, Secondary Education*	MS	NCA&TSU
13.1323	Chemistry, Secondary Education^	BS	NCA&TSU
13.1323	Chemistry, Secondary Education*	MS	NCA&TSU

Degree Program			Institution
13.1328	History, Secondary Education	BS	NCA&TSU
13.1329	Physics, Secondary Education^	BS	NCA&TSU
14.1201	Engineering Physics*	BS	NCA&TSU
31.0301	Recreation Administration	BS	NCA&TSU
13.1308	Family & Consumer Sci. Education	BS	NCCU
13.1308	Family & Consumer Sci. Education	MS	NCCU
13.1317	Sociology, Teacher Education	MA	NCSU
13.1202	Elementary Education*	MEd	UNCG
13.1307	School Health	BS	UNCG
13.1311	Mathematics Education*	MEd	UNCG
13.1328	History Education*	MEd	UNCG
13.1331	Communication Studies Education	BA	UNCG
13.1329	Physics, Secondary Education	BA	UNCW
13.1329	Physics, Secondary Education	BS	UNCW
05.0202	Cherokee Studies*	MA	WCU
13.0501	Instructional Technology Spec.*	MAEd	WCU

NOTE: Programs marked with "*" will be merged into other existing degree programs. Programs marked "^" will be combined into a new comprehensive secondary education science program that NCA&TSU will request the Board of Governors to authorize.

V. Comments on the 2005 Review

This review leaves in place some programs that, in terms of number of majors and degrees conferred, would appear to be of relatively low productivity. It must be understood, however, that decisions to discontinue, or to retain, or to consolidate particular degree programs should not be based on numbers alone. There is no generally accepted formula for what constitutes productivity in terms of enrollments and graduates in a specific degree program and hence no national benchmarks to which UNC program productivity can be compared. The criteria established by the Board of Governors were intended to set realistic expectations for degree program productivity. Such decisions generally should be predicated on an informed judgment that balances available resources against (1) the obligation to respond to the demands of society for certain kinds of employees, (2) program costs, and (3) considerations of the broader responsibilities of the university community to society and the duty to maintain the strength and vitality of that community. "Informed judgment" is emphasized. No mathematical model will lead inherently to a right decision.

Thus, there are sound and relevant educational reasons to retain some programs in the inventory of the University despite their failure to meet productivity criteria. Among those reasons are the following:

- **The program is central to the mission of the institution and complements and supports other necessary programs.** For example, a mathematics program with few majors provides essential support to programs in chemistry, physics, and technology; or a chemistry program with few majors provides necessary support to programs in chemical engineering, agriculture, nutrition, and nursing; or

doctoral programs in the biomedical sciences have low enrollments but are required for medical school accreditation and play a vital role in the instruction of medical students.

- **Although student demand is low, the societal need is still high, and the program should be retained.** For example, enrollments and degrees conferred are relatively low in some education programs and science and mathematics programs, but the state's public schools need middle grades teachers, special education teachers, as well as subject specialists, especially in mathematics, science, and reading. Greater efforts should be made to attract students into these programs, many of which are currently under enrolled, rather than to eliminate them and restrict access.

- **The program provides access and opportunity for greater numbers of minority students to participate in higher education in fields where there are critical needs for more minorities** (e.g., education, mathematics, science, engineering, and the health professions). Low enrollment programs on some campuses reflect the overall campus enrollment. As the focused growth institutions gain enrollment, these programs should also expand.

- **The program is needed to maintain institutional diversity and balance in program offerings**. For example, a variety of undergraduate courses and programs in the arts and sciences disciplines and in some professional areas are desirable and appropriate for all constituent institutions except the North Carolina School of the Arts. Some greater diversification of programs at the undergraduate level has been especially important for institutions that historically had concentrated a major part of their resources in traditional areas of teacher education. Without this diversity, it will be difficult for some institutions to increase their enrollments.

- **The program is needed to ensure greater geographic access and regional distribution of programs, not only to provide wider opportunity and availability for students but also to perform a needed service role in a given region of the state.** For example, a program in industrial and engineering management with relatively low enrollments is regarded by community and business leaders as a critical element in local and regional economic development. However, the growing availability of distance learning technologies may diminish the rationale for continuing such programs at a given institution if they can be offered effectively at a distance by another institution.

- **The program is unique to the institution and reflects the regional culture or identity of the institution** (e.g., Appalachian Studies at Appalachian State University, American Indian Studies at UNC Pembroke).

- **The majority of courses for the program are drawn from other majors, and thus the costs for offering the program are marginal** (e.g., social sciences programs, medical laboratory technology programs, and area studies programs depend largely on courses from other disciplines; to discontinue such programs would produce minimal cost savings and might actually reduce enrollment, and hence lower productivity, in courses in supporting disciplines).

- **Although the number of students enrolled in the program is low, enrollments in the courses supporting the program are satisfactory because they serve students seeking other degrees or certificates** *(e*.g., students seeking licensure only, who are not counted as majors).
- **The program is relatively new and may need more time to develop, or the program has experienced growth since the previous studies (and thus is on an upward trajectory) but has not yet met productivity criteria.**
- **Recent circumstances have changed, and demand for the program is rising**. In many instances, institutions have provided specific and persuasive evidence that changes have been made, or are being made, to make the program more attractive and more accessible. Such circumstances include the following:
- Legislative changes (e.g., increased pay for earning the advanced master's degree), which should raise enrollment in master's degree programs in education;
- Revisions in curricula and degree requirements (e.g., a new emphasis on environmental studies in natural science programs, which takes advantage of an institution's regional environment);
- Improved scheduling of courses (e.g., late afternoon, evenings, and weekends) to meet the needs of nontraditional students;
- Addition of students through distance learning technology that combines on-campus and off-campus students in the same courses;
- New leadership or the addition of new faculty in specialized disciplines to revitalize the program; and
- New or renovated facilities and equipment, which will attract and accommodate more students in the program (e.g., a powerful new telescope to support a physics program, a new science facility, or a new fine arts facility).

In addition to these educational reasons, another factor that argues for discretion in eliminating some marginally productive programs concerns the projected enrollment of the University. Enrollments are steadily increasing during the current decade as a result of rising numbers of high school graduates enrolling at UNC institutions and the growth in enrollment of nontraditional students through distance education.

VI. Benefits of the Reviews

This review, as well as previous system-wide and biennial productivity reviews, have resulted in benefits to the constituent institutions and the University as a whole in a number of ways. These include:

- Clearer alignment between university missions and academic program priorities,
- More effectiveness in developing programs that are responsive to the needs of the state,

- Greater efficiency in identifying and reallocating resources that are available to ensure that programs are current and that can be used by faculty and students to pursue new fields of knowledge,
- Improvements in academic program quality which enhance the teaching and learning process and provide a stronger basis of support for faculty and students who are engaged in inquiry, exploration and productive research,
- Improved effectiveness in realizing the Strategic Initiatives which enable the members of UNC academic community to contribute to the mission of The University of North Carolina through teaching, research and service.

Appendices

Appendix A outlines the specific criteria used in conducting the review and evaluating the degree programs for the 2005 Review of Academic Degree Program Productivity. Appendix B provides recommendations and additional information with respect to the programs reviewed in 2005. Appendix C provides a summary of those degree programs that have been discontinued by the Board of Governors from July 1, 1972 through June 30, 2001. The table does not include the programs recommended for discontinuation in this report.

Appendix A

The University of North Carolina
Criteria and Guidelines for Program Review and Recommendations

Date: _____

Constituent Institution: _____

API Discipline Number: _____

CIP Discipline Specialty Title: _____

CIP Discipline Specialty Number: _____

Level: (B, M, CAS, D, First Professional) _____

Exact Title of the Program _____

Exact Degree Abbreviation (e.g., B.S., B.A., M.A., M.S., Ph.D.): _____

Directions: Please complete this form for every program requiring review where the recommendation will be to continue or strengthen the program. For programs that will be discontinued, see Enclosure #2. The criteria below are guidelines for program review.

1. Centrality to University's Mission
   - How important to the mission of the institution is this program?
   - Would the elimination of this program have any adverse effect on the mission of the institution?
   - Is there any discernible societal need for the program?
   - Can this program be combined with a similar or related program in the present department or in another department?
2. Quality of the Program
   - What is the quality of the program?
   - What indicators are used to assess the quality of the program?
   - Is the program accredited or has accreditation been sought?
3. Faculty Involved
   - How many faculty members are teaching in this program?
   - How many graduate assistants and part-time faculty usually teach in this program?
   - How many of the faculty have appropriate terminal degrees?
   - What is the average teaching load of the faculty in the department?
   - What is the percentage of reassigned faculty time per semester?
   - If this program should be discontinued, can the faculty members teaching in it be continued in this or a related area?
4. Facilities/Equipment
   - Is the available space (classroom laboratory, etc.) adequate and appropriate for the program?
   - Is the necessary equipment available and in working order?
5. Demand
   - For how many years has the program been in place? Is it serving the predicted number of students? Are the on-campus numbers declining?
   - Is the program offered off-campus, if so what are the enrollments?
   - How many majors/graduate students are in the program currently (2000-2001)?
   - How many graduates does the program produce annually?
   - What are the job prospects for these graduates?

- Are there courses in the program which are essential supporting courses for other programs inside and outside of the department?

6. Costs
   - How many credit hours are required for completion of the program? Is the total greater than the institutional average?
   - How many different concentrations or options are available in the program? Could some of them be consolidated or eliminated to reduce course proliferation and costs?
   - Using the list of courses required in the major (Attachment 2), which you reported earlier to Office of the President, and the report on course enrollments prepared in response and returned to you by General Administration, discuss program productivity as it is reflected in course enrollments.
   - Is there a requirement for a minimum number of students to be registered before a course will be offered?
   - Given a threshold of less than 10 for undergraduate courses and less than 5 for graduate courses, does the program have under-enrolled courses? How many?
   - What are the yearly costs for specialized equipment and library resources to support the program?
   - If the space, equipment and library holdings are not adequate, what would it cost to make them adequate?
   - Would the department rather spend those dollars on other programs /activities?
7. Duplication
   - Does the program complement others at the university? How?
   - Can this program's objectives be accomplished equally well through another program?
   - Are courses in the program duplicated in other programs/departments?
   - Has there been any effort to eliminate the duplication of these courses?
   - Could enrollment be increased by sharing some courses with another institution through distance education (with your institution as a provider or a recipient)?
   - Is this program distinctive in the UNC system? If yes, briefly indicate how.
   - Is there a location (geographic/demographic/cultural) advantage to the program?
8. Critical Mass
   - What would be the impact on the department if the program under review were eliminated? If it were delivered in part or entirely by another institution through distance education?
   - Would the department still exist? For what purpose?
   - What would be the impact on other departments or programs if the program under review were eliminated?
9. Recommendation about the Program

   As a result of this review, your institution is to make recommendations which address these major questions:
   - Should the program be continued as a separate degree program? If continuation is recommended provide a sound and compelling reasons.
   - If the recommendation is to continue the program, can it be made more productive? If so, how? What steps would be taken to strengthen the program and make it more productive? (If the program recommended for continuation was also subject to review in 2003, the rationale must be especially compelling.) Should the program be consolidated or merged with other existing programs? If so, which ones?
   - Should the program be discontinued? If so, on what timetable? If the program is discontinued, would there be any savings of funds or resources that could be reallocated to other programs and activities of greater productivity or higher priority? If so, what would be the savings?

Signatures:

Chancellor _____ Chief Academic Officer _____

Person to contact if there are questions about information in this form _____

Appendix B: Summary of 2005 UNC Academic Program Productivity Review

Program names in italics were identified by campuses for inclusion in recommendations in addition to programs identified by the UNC Office of the President (OP).

Campus	CIP	Program	Level	Campus Response	OP Recommendation
ASU	4.0301	Community & Regional Planning	B	Continue, needed in region, minimal savings from discontinuation.	Continue; monitor enrollments in 2007 review.
ASU	13.1001	Habilitative Science	B	**Discontinue**, inadequate demand.	**Discontinue.**
ASU	13.1314	Health & Physical Education	M	**Discontinue.** No enrollments in program.	**Discontinue.**
ASU	27.0101	Mathematics	M	Continue, serves community college faculty, only program in Northwestern NC.	Continue; monitor enrollments in 2007 review.
ASU	50.0704	Arts Management	B	Continue, central to ASU's regional mission; new center & gallery opening.	Continue; monitor enrollments in 2007 review.
ASU	51.0913	Athletic Training	B	Continue, enrollments are increasing, jobs for grads increasing.	Continue; monitor enrollments in 2007 review.
ASU	51.1005	Clinical Laboratory Science	B	Continue, health sciences area is growing, no savings from discontinuation.	Continue; monitor enrollments in 2007 review.
ASU	54.0105	Public History	M	Continue; new director has been hired to grow program.	Continue; monitor enrollments in 2007 review.
ECU	13.1305	English, Sec. Ed.	M	Continue, only program in Eastern NC, moved to new unit for growth.	Continue; monitor enrollments in 2007 review.
ECU	27.0101	Mathematics	M	Continue, enrollment increasing, no savings in discontinuing.	Continue; monitor enrollments in 2007 review.
ECU	50.0904	Music Theory & Composition	B	Continue, strong department, new initiatives.	Continue; monitor enrollments in 2007 review.
ECU	50.0904	Music Theory & Composition	M	Continue, strong department, new initiatives.	Continue; monitor enrollments in 2007 review.
ECU	51.2202	Environmental Health	M	Continue, new faculty and administration.	Continue; monitor enrollments in 2007 review.
ECU	51.2305	Music Therapy	B	Continue, serves other majors, new facility being built.	Continue; monitor enrollments in 2007 review.

Campus	CIP	Program	Level	Campus Response	OP Recommendation
ECU	51.2305	Music Therapy	M	Continue, strong program, courses used for others.	Continue; monitor enrollments in 2007 review.
ECU	54.0105	Public History	B	Continue, new faculty, new curriculum.	Continue; monitor enrollments in 2007 review.
ECSU	13.1302	Art Education	B	Continue, enrollment growth, need in region.	Continue; monitor enrollments in 2007 review.
ECSU	13.1305	English, Sec. Ed.	B	Continue, enrollment growth, need in region.	Continue; monitor enrollments in 2007 review.
ECSU	13.1311	Math, Sec. Ed.	B	Continue, provides certification, courses needed by other majors.	Continue; monitor enrollments in 2007 review.
ECSU	13.1322	Biology Education	B	Continue, needed for teacher shortage, courses needed for other majors.	Continue; monitor enrollments in 2007 review.
ECSU	13.1323	Chemistry, Sec. Ed.	B	Continue, needed for teacher shortage, courses needed for other majors.	Continue; monitor enrollments in 2007 review.
ECSU	13.1328	History, Sec. Ed.	B	Continue, serves other education majors, numbers increasing.	Continue; monitor enrollments in 2007 review.
ECSU	15.0612	Industrial Technology	B	Continue, enrollment strongly up, needed by other majors.	Continue; monitor enrollments in 2007 review.
FSU	52.0601	Managerial Economics	B	**Discontinue,** inadequate demand.	**Discontinue.**
FSU	54.0101	History	M	**Discontinue,** inadequate demand.	**Discontinue.**
NCA&T	1.0103	Agricultural Economics	B	Continue, enrollments increasing, important to NC economy.	Continue; monitor enrollments in 2007 review.
NCA&T	4.0601	Landscape Architecture	B	Continue, enrollments increasing, unique program serves NC economy.	Continue; monitor enrollments in 2007 review.
NCA&T	13.1001	*Special Education*	B	**Discontinue**, low enrollments.	**Discontinue.**
NCA&T	13.1203	Middle Grades Ed.	M	**Discontinue**, low enrollments.	**Discontinue.**
NCA&T	13.1305	*English, Sec. Ed.*	B	**Discontinue**, low enrollments.	**Discontinue.**
NCA&T	13.1311	*Mathematics, Sec. Ed.*	B	**Discontinue**, low enrollments.	**Discontinue.**

Campus	CIP	Program	Level	Campus Response	OP Recommendation
NCA&T	13.1314	*Health & Physical Education*	B	**Discontinue**, low enrollments.	**Discontinue.**
NCA&T	13.1322	Biology, Sec. Ed.	M	**Discontinue**, incorporate into MAT program.	**Discontinue.**
NCA&T	13.1322	*Biology, Sec. Ed.*	B	**Discontinue**, merge into new degree program.	**Discontinue.**
NCA&T	13.1323	*Chemistry, Sec. Ed.*	B	**Discontinue**, merge into new degree program.	**Discontinue.**
NCA&T	13.1323	*Chemistry, Sec. Ed.*	M	**Discontinue**, incorporate into MAT program.	**Discontinue.**
NCA&T	13.1328	*History, Sec. Ed.*	B	**Discontinue**, low enrollments.	**Discontinue.**
NCA&T	13.1329	Physics, Sec. Ed.	B	**Discontinue,** merge into new degree program.	**Discontinue.**
NCA&T	14.0301	Bioenvironmental Engineering	B	Continue, growth plan in place, needed for NC biotech economy.	Continue; monitor enrollments in 2007 review.
NCA&T	14.1201	Engineering Physics	B	**Discontinue**, offer as a track in Physics major.	**Discontinue.**
NCA&T	19.0501	Food & Nutritional Sciences	B	Continue. Major is needed at land-grant institution.	Continue; monitor enrollments in 2007 review.
NCA&T	27.0101	Mathematics	B	Continue, courses needed for many majors.	Continue; monitor enrollments in 2007 review.
NCA&T	31.0301	Recreation Administration	B	**Discontinue**, low enrollments.	**Discontinue.**
NCA&T	40.0801	Physics	M	Continue, will be combined with Engineering Physics, needed for many degrees.	
NCCU	13.1308	*Family & Consumer Sciences Educe.*	B	**Discontinue**, low enrollments.	**Discontinue.**
NCCU	13.1308	*Family & Consumer Sciences Educ.*	M	**Discontinue,** low enrollments.	**Discontinue.**
NCCU	13.1314	Physical Education	M	Continue, needed for teachers.	Continue; monitor enrollments in 2007 review.
NCCU	13.1323	Chemistry, Sec. Ed.	M	Continue, will merge into comprehensive science education program.	Continue; monitor enrollments in 2007 review.
NCCU	27.0101	Mathematics	M	Continue, program needed for working adults, teachers.	Continue; monitor enrollments in 2007 review.
NCCU	40.0601	Earth Sciences	M	Continue, recent curriculum update, jobs increasing.	Continue; monitor enrollments in 2007 review.

Campus	CIP	Program	Level	Campus Response	OP Recommendation
NCCU	51.2309	Adapted Physical Education	M	Continue, enrollments are increasing.	Continue; monitor enrollments in 2007 review.
NCSU	1.0103	Agricultural & Resource Economics	M	Continue, complements other programs, little savings.	Continue; monitor enrollments in 2007 review.
NCSU	1.0901	Animal Science & Poultry Science	D	Continue, unique program serves NC economy.	Continue; monitor enrollments in 2007 review.
NCSU	1.0907	Poultry Science	M	Continue, unique program serves NC economy.	Continue; monitor enrollments in 2007 review.
NCSU	13.1317	Sociology, Teacher Education	M	**Discontinue**, no enrollments.	**Discontinue.**
NCSU	13.1328	History, Sec. Ed.	M	Continue, needed, minimal savings.	Continue; monitor enrollments in 2007 review.
NCSU	14.0201	Aerospace Engineering	D	Continue, industry fluctuates, no savings.	Continue; monitor enrollments in 2007 review.
NCSU	14.9999	Agricultural & Environmental Technology	B	Continue, program recruitment and revision underway.	Continue; monitor enrollments in 2007 review.
UNCA	52.0205	Industrial & Engineering Management	B	Continue, interdisciplinary program needed by NC economy.	Continue; monitor enrollments in 2007 review.
UNCC	51.1005	Chemistry, Medical Technology	B	Continue, serves region, all courses used for other majors.	Continue; monitor enrollments in 2007 review.
UNCC	40.0801	Applied Physics	M	Continue, adding medical physics doubled enrollment, new faculty hired.	Continue; monitor enrollments in 2007 review.
UNCCH	13.1209	Early Intervention (B-K)	M	Continue, program coding error undercounted enrollments.	Continue; monitor enrollments in 2007 review.
UNCCH	14.3701	Operations Research	D	Continue, merger with Statistics PhD is being explored.	Continue; monitor enrollments in 2007 review.
UNCCH	16.0499	Slavic Languages	D	Continue, program unique in state, supports federally funded center.	Continue; monitor enrollments in 2007 review.
UNCCH	51.0203	Speech & Hearing, Speech & Language Pathology	M	Continue, reserved for a few non-NC residents not seeking licensure, no costs.	Continue; monitor enrollments in 2007 review.

Campus	CIP	Program	Level	Campus Response	OP Recommendation
UNCCH	51.0504	Dental Hygiene Education	M	Continue, program unique in state, cannot afford to increase enrollments.	Continue; monitor enrollments in 2007 review.
UNCCH	51.1611	Public Health Nursing	M	Continue, unique program serves NC economy.	Continue; monitor enrollments in 2007 review.
UNCG	13.0604	Educ. Research, Measurement & Evaluation	D	Continue, many changes in program underway, international exchange starting, new faculty hired.	Continue; monitor enrollments in 2007 review.
UNCG	13.1202	*Elementary Education*	M	**Discontinue**, merged into C&I masters program.	**Discontinue.**
UNCG	13.1210	Developmental Foundations, Preschool Educ.	B	Continue (named changed to B-K, enrollments currently being reported under CIP 19.0701.	Continue; monitor enrollments in 2007 review.
UNCG	13.1307	*School Health*	B	**Discontinue**, major no longer offered.	**Discontinue.**
UNCG	13.1311	Mathematics	M	**Discontinue**, merged into C&I masters program.	**Discontinue.**
UNCG	13.1328	History	M	**Discontinue**, merged into C&I masters program.	**Discontinue.**
UNCG	13.1331	Communication Studies	B	**Discontinue,** no enrollments.	**Discontinue.**
UNCG	19.0901	Textile Products Marketing	D	Continue, new faculty, new curriculum.	Continue; monitor enrollments in 2007 review.
UNCG	27.0101	Mathematics	M	Continue, enrollment=number of available assistantships.	Continue; monitor enrollments in 2007 review.
UNCG	45.1001	Political Science	M	Continue, courses overlap with MPA degree, serves CC faculty.	Continue; monitor enrollments in 2007 review.
UNCG	50.0904	Music Theory & Composition	B	Continue, enrollments normal for this type of program, new faculty.	Continue; monitor enrollments in 2007 review.
UNCG	50.0904	Music Theory & Composition	M	Continue, enrollments normal for this type of program, new faculty.	Continue; monitor enrollments in 2007 review.
UNCP	31.0301	Recreation Administration	B	Continue, important to region, more marketing.	Continue; monitor enrollments in 2007 review.
UNCP	51.2207	Health Promotion	B	Continue, important to region, will investigate merging with Exercise & Sport Science degree.	Continue; monitor enrollments in 2007 review.
UNCW	13.1329	Physics, Sec. Ed.	B	**Discontinue**, BA degree.	**Discontinue.**

Campus	CIP	Program	Level	Campus Response	OP Recommendation
UNCW	13.1329	Physics, Sec. Ed.	B	**Discontinue**, BS degree.	**Discontinue.**
WCU	5.0202	American History, Cherokee Studies	M	**Discontinue**, track is in the History MA degree.	**Discontinue.**
WCU	13.0501	Instructional Technology Specialist	M	**Discontinue**, track is in the Educational Supervision MAEd degree.	**Discontinue.**
WCU	15.0612	Technology	M	Continue, important for region's economy, recruiting undergraduates.	Continue; monitor enrollments in 2007 review.
WCU	27.0301	Applied Mathematics	M	Continue, no savings, courses taken by other majors.	Continue; monitor enrollments in 2007 review.
WCU	50.0903	Music	M	Continue, successful recruiting, needed in region, low cost program.	Continue; monitor enrollments in 2007 review.
WCU	51.0706	Health Information Management	B	Continue. Program is increasing enrollments through distance education.	Continue; monitor enrollments in 2007 review.
WSSU	13.1302	Art Education	B	Continue, WSSU will begin coding students in this CIP.	Continue; monitor enrollments in 2007 review.
WSSU	13.1305	English, Sec. Ed.	B	Continue, WSSU will begin coding students in this CIP.	Continue; monitor enrollments in 2007 review.
WSSU	13.1311	Mathematics, Sec. Ed.	B	Continue, WSSU will begin coding students in this CIP.	Continue; monitor enrollments in 2007 review.
WSSU	13.1318	Social Studies Education	B	Continue, WSSU will begin coding students in this CIP.	Continue; monitor enrollments in 2007 review.
WSSU	13.1330	Spanish Teacher Education	B	Continue, WSSU will begin coding students in this CIP.	Continue; monitor enrollments in 2007 review.
WSSU	50.0909	Music Business	B	Continue. New faculty hired, department commits to resources, central to department.	Continue; monitor enrollments in 2007 review.

Appendix C

Summary of Degree Programs Discontinued by the Board of Governors for UNC Constituent Institutions by Program Area and Level
June 1, 1972-October 30, 2005

	Degree Level				
Program Area	**B**	**M**	**D**	**FP**	**Total**
Agriculture & Natural Resources	5	2			7
Architecture & Environmental Design		1			1
Area Studies	2				2
Biological Sciences	7	3	2		12
Business & Management	13	3			16
Communications	4	1			5
Computer & Information Systems					0
Education	61	86	10		157
Engineering & Technology	8	3	1		12
Fine & Applied Arts	9	3			12
Foreign Languages	11	12			23
Health Professions	18	4	5		27
Home Economics	7	4	2		13
Law	1				1
Letters	4	3			7
Library Science	2				2
Mathematics	2	4			6
Physical Sciences	9	8			17
Psychology	1	7			8
Public Affairs & Services	4	2			6
Social Sciences	17	12			29
Interdisciplinary Studies	8	2			10
Total	**193**	**160**	**20**		**373**
Associate degrees discontinued					19
Intermediate (CAS & EdS) programs discontinued					87
Total					**479**