

**Request for Authorization to Establish a
Bachelor of Science in Clinical Research
(BS, CIP 51.0719) at
North Carolina Central University**

I. Program Highlights

- The objective of North Carolina Central University's proposed Bachelor of Science in Clinical Research degree program is to prepare students for careers in clinical research at clinical research organizations (CROs) and pharmaceutical companies, or graduate school. The curriculum offers rigorous coursework and a semester-long internship to provide students with hands-on experience in contract CROs.
- The proposed degree program will require 120 credit hours for completion.
- Twenty full-time students and 10 part-time students are projected in the first year. Ninety full-time students and 30 part-time students are projected by the fourth year.
- The Department of Pharmaceutical Sciences is requesting one tenure-track faculty member to teach core courses and two adjunct faculty members.
- No tuition differential will be sought to support the proposed degree program. The proposed budget will be supported by an increase in enrollment and other funds provided by the NCCU College of Arts and Sciences and the Biomanufacturing Research Institute Technology Enterprise (BRITE) Institute.
- The resources of NCCU's library are adequate to support the proposed degree program.
- The facilities are adequate to support the proposed degree program.

II. BOG Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** One other institution in the UNC System offers a BS degree in Clinical Research: University of North Carolina Wilmington. Campbell University also offers the proposed degree program.
2. **Relation to Campus Distinctiveness and Mission.** The proposed BS in Clinical Research degree program supports the mission of NCCU to advance "research in the biotechnological, biomedical, informational, computational, behavioral, social, and health sciences" and "enhance the quality of life of citizens and the economic development of North Carolina, the nation, and the world."

The Department of Pharmaceutical Sciences is the academic arm of NCCU's Biomanufacturing Research Institute and Technology Enterprise (BRITE). BRITE's mission is to establish and evolve programs at the BS, MS, and Ph.D. levels that provide students with the scientific education, technical and leadership competencies for successful careers in the biomanufacturing, biotechnology, and pharmaceutical industries. The BRITE building was co-funded by the State of North Carolina and the Golden LEAF Foundation's economic development initiatives. The proposed degree program would help fulfill the purpose of the economic development initiatives by producing a trained workforce to meet the future demands of the state and beyond.

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3. **Demand (local, regional, state).** There is an increasing demand for clinical research positions at various levels. Online searches revealed 446 clinical research job openings on the website of IQVIA (formerly Quintiles and IMS Health) and 611 job openings on the website of Syneos. There are 120 clinical research organizations in the Research Triangle Park (RTP) area.
4. **Potential for Unnecessary Duplication.** One other institution in the UNC System offers a BS degree in Clinical Research: University of North Carolina Wilmington. Campbell University also offers the proposed degree program. NCCU is the only UNC System institution positioned to serve students in the central region. Furthermore, the other institutions enroll about 100 students in clinical research, with job placement rates above 90%. The institutions cannot meet the fast-growing demand in the job market in this field.
5. **Employment Opportunities for Graduates.** According to the Bureau of Labor Statistics (BLS), employment in the field is projected to grow 13% from 2016 – 2026, faster than the average of all occupations (around 7%). Jobs in clinical trial research will continue to be in demand because they contribute to the development of treatments and medicines that improve health and wellness.
6. **Faculty Quality and Number.** The Department of Pharmaceutical Sciences is requesting one tenure-track faculty member to teach core courses and two adjunct faculty members. The proposed degree program will not have a significant impact on faculty teaching load, public service activity, or scholarly research.
7. **Availability of Campus Resources (library, space, etc.)** The institution's James E. Shepard Library has adequate resources to support the proposed degree program. It maintains a collection of over 300,000 print volumes, 1,200 journals, magazines, and newspapers, and more than 120,000 government documents. Beyond its print collection, the library subscribes to over 220 electronic databases, which provide students with 24-hour access to over 25,000 electronic full text journals and books. The Shepard Library is recognized as a federal depository library. A librarian also serves as a liaison to the Department of Pharmaceutical Sciences to ensure that faculty, staff, and students have the necessary resources and services to support the academic enterprise.

The Department of Pharmaceutical Sciences will work to enhance the number of books and journals related to clinical research.

Facilities at NCCU are adequate to support the proposed degree program. The core courses would be delivered in NCCU's Biomanufacturing Research Institute Technology Enterprise (BRITE) Building. The BRITE building was co-funded by the State of North Carolina and the Golden LEAF Foundation's economic development initiatives. Additional classrooms are available in NCCU's Mary Townes Science Building.

8. **Relevant Lower-level and Cognate Programs.** There is no cognate program offered at NCCU at this time.

- 9. Impact on Access and Affordability.** No tuition differential will be sought to support the proposed degree program. The proposed budget will be supported by an increase in enrollment and other funds provided by the NCCU College of Arts and Sciences and the Biomanufacturing Research Institute Technology Enterprise (BRITE) Institute.

Tuition and fees for fall 2019 are as follows:

Category	Resident	Non-Resident
Tuition	3,728 .00	16,435.00
Mandatory Fees (Activities, Athletics, Health, Debt Service, Campus Safety, ASG)	2,690.21	2,690.21
Special Fees (Program Specific)	N/A	N/A
Application Fee (Program Specific)	N/A	N/A

- 10. Expected Quality.** The measures used to evaluate the proposed degree program will include enrollment, student acquisition of program learning outcomes, graduation rates, and employment following graduation.
- 11. Feasibility of Collaborative Program.** Although NCCU consulted with UNC Wilmington, Campbell University, and Kent University's online program, collaborative opportunities were not identified. NCCU has been collaborating with Duke Clinical Research Institute to develop the curriculum and internship opportunities. In addition, NCCU is considering a Memorandum of Understanding (MOU) with Durham Technical Community College's Clinical Research program to create a pipeline for their students to seamlessly enter the proposed degree program. Durham Technical Community College graduates about 60 students per year in its clinical research programs.
- 12. Other Considerations.** None.

III. Summary of Review Processes

Campus Review Process and Feedback. The proposal was reviewed by the NCCU faculty, department and university curriculum committees, the provost, and chancellor. Approval was obtained at all levels.

UNC System Office Review Process and Feedback. Throughout the review process, NCCU provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support its statements. Reviewers evaluated the proposal and requests for information were provided by the institution.

IV. Recommendation

It is recommended that the Board of Governors approve NCCU's request to establish a Bachelor of Science in Clinical Research degree program (CIP 51.0719) to enroll students starting spring 2020.

**Request for Authorization to Establish a
Bachelor of Arts in Writing, Rhetoric, and Digital Studies
(BA, CIP 23.1301) at
University of North Carolina at Charlotte**

I. Program Highlights

- University of North Carolina at Charlotte's proposed Bachelor of Arts in Writing, Rhetoric, and Digital Studies degree program would prepare graduates to evaluate the implications of print, digital, and social media in both local and global contexts.
- The proposed degree program would require 120 credit hours, including general education courses (37-43 credit hours), major courses (36 credit hours), and electives (47-53 credit hours).
- The proposed degree program would be delivered on campus.
- Twenty-five full-time students and two part-time students are projected in the first year. One hundred and fifty full-time students and 20 part-time students are projected in the fourth year.
- No new full-time faculty positions are requested in the first year. If projections are met, an assistant professor position would be requested in year three and year four of the program.
- The proposed degree program will require enrollment increase funds to support faculty salary. No tuition differential will be sought to support the proposed degree program.
- The resources of UNC Charlotte's library are adequate to support the proposed degree program.
- The facilities are adequate to support the proposed degree program.

II. BOG Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** There are 11 institutions in the UNC System offering programs similar to the proposed degree program, along with four private institutions.
 - Appalachian State University offers the BA in English, with a professional writing concentration.
 - Elizabeth City State University offers the BA in English, with a news media concentration.
 - Elon University offers the BA in English, with a writing and rhetoric concentration.
 - Fayetteville State University offers the BA in English, with a minor in professional writing.
 - Gardner Webb University offers the BA in English, with an emphasis on writing.
 - Guilford College offers the BA in English and Media Studies.
 - The University of Mount Olive offers the BA in English.
 - North Carolina Agricultural and Technical State University offers the BA in English, with a concentration in technical writing.
 - North Carolina Central University offers the BA in English, with a writing concentration.
 - North Carolina State University offers the BA in English, with a language, writing, and rhetoric concentration.
 - University of North Carolina at Charlotte offers the BA in English, with a language and digital technology concentration.
 - University of North Carolina at Pembroke offers the BA in English, with an emphasis on professional writing.
 - University of North Carolina Wilmington offers the BA in English, with a professional writing track.

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- Western Carolina University offers the BA in English, with a professional writing concentration.

Concentrations and emphases in departments of English require courses from across the subdisciplines of English (e.g., linguistics, literature) or focus on technical, professional or scientific communication. The goal of the proposed degree program is to provide rhetorical and writing strategies for print and digital writing that are portable across disciplines, professions, civic and personal contexts.

- 2. Relation to Campus Distinctiveness and Mission.** This program aligns with UNC Charlotte's mission to offer competitive programs of research and exemplary undergraduate degrees focusing on community engagement, particularly for the needs of the greater Charlotte area. With its emphasis on communication, critical thinking, workforce preparation and civic engagement, the proposed major also aligns with the University's plan to "Educate a diverse student body through an integrated academic experience that positions graduates for personal success and civic responsibility in the global environment of the 21st century" (Goal #1).

Faculty teaching in the University Writing Program already contribute to the research mission of the university (Goal #2), but the proposed major would further opportunities to involve undergraduates in research, solving real communication problems as part of their active learning in coursework. The proposed capstone would engage students with community partners (Goal #3).

- 3. Demand (local, regional, state).** Traditional measures of labor market data provide some challenges for the analysis of employability for graduates of writing, rhetoric, and digital studies programs. Available labor market data are based on traditional categories rather than on the skills currently called for by employers.

Hanover Research performed a feasibility study for the academic proposal and noted that there is a growing national demand for degrees comparable to writing, rhetoric, and digital studies.

Hanover Research's feasibility study, as well as national employment studies, point to critical thinking and the flexibility to work across print and online texts as essential to health sciences (social work, public health, health management), business (marketing, economics, management, operations), arts (art education, architecture, museum studies, art history), and STEM fields. A Writing, Rhetoric, and Digital Studies degree would also qualify students for variety of graduate programs at the MA/PhD level: Law; Journalism; Computing & Informatics; Digital Media; Culture & Media; Information Design; and programs in Rhetoric, Writing, Technical Communication or English that require digital composing undergraduate degrees.

- 4. Potential for Unnecessary Duplication.** While similar degrees are offered the state, the proposed degree would be the only one in North Carolina offered through a unit solely focused on the critical skills needed for digital composition and writing as applicable across majors and employment fields.
- 5. Employment Opportunities for Graduates.** The search term "writing" in the U.S. Department of Labor Occupational Outlook Handbook produces 577 results, many of which provide information

on jobs for undergraduates with a single writing degree as well as jobs with a high demand of writing (e.g., financial managers, forensic science tech) that would make someone with a WRDS major or minor more marketable.

The North Carolina workforce is expected to grow more quickly (12.3 percent) than the national workforce through 2024 (6.5 percent), and aggregated occupations in rhetoric and writing technologies (RWTS) are expected to grow at an about as fast as average rate compared to the overall state average, at 15.2 percent growth. These projections indicate growing demand for RWTS-related positions in North Carolina. Communications fields projected for faster than average growth include Technical Writers (22.7 percent) and Marketing Managers (24.4 percent). Web Developers are projected for particularly strong growth at 32.1 percent from 2014 to 2024.

An analysis by Burning Glass Technologies, which studies job trends in real time by mining data from employment ads, found that writing and communications are the most requested job requirements across nearly every industry, even fields such as information technology and engineering.

6. **Faculty Quality and Number.** Current faculty have the capacity to support the proposed degree program for the first year without additional hires. Growth in faculty will be contingent on growth in the major and the demands on the First Year Writing and Critical Thinking and Writing courses. Some lecturer positions may be shifted to tenure track positions as research growth occurs in the discipline. If projections are met, an assistant professor position would be requested in year three and year four of the program.
7. **Availability of Campus Resources (library, space, etc.)** The present holdings of J. Murrey Atkins Library at UNC Charlotte are sufficient to support the instructional and research needs of the BA in Writing, Rhetoric, and Digital Studies program. This is true both in terms of print and online resources.

Current facilities are adequate to support the proposed degree program. There is a seminar room, four classrooms, a main office area, faculty offices, the Writing Resource Center, a small student conference room, and a small meeting room for student collaborations and committee meetings.

Plans to move the Writing Resource Center to the library will free up space that will serve classrooms for the major, a computer lab, and/or offices for additional faculty. Areas currently used for swing space while renovation of buildings occur may also serve the major if it rapidly expands and as renovations are completed.

8. **Relevant Lower-level and Cognate Programs.** Students can complete their degrees by taking courses only in the proposed curricular area (Writing, Rhetoric, and Digital Studies). However, based on consultations with relevant units, students can also select courses to take as electives from an approved list of courses delivered by the Departments of English and Communication Studies, the Women's and Gender Studies Program and in the College of Computing and Informatics.

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- 9. Impact on Access and Affordability.** The proposed degree program will require enrollment increase funds to support faculty salary. No tuition differential will be necessary.

Tuition and fees for fall 2018 and spring 2019 are as follows:

Undergraduate Residents (Per Semester; In Dollars)

Category	Resident	Non-Resident
Tuition	3,812 .00	17,246.00
Mandatory Fees (Activities, Athletics, Health, Debt Service, Campus Safety, ASG)	3,094.00	3,094.00
Special Fees (Program Specific)	N/A	N/A
Application Fee (Program Specific)	N/A	N/A

- 10. Expected Quality.** Metrics that would be used to evaluate the proposed program include student acquisition of learning outcomes, graduation rates, and job placement.

- 11. Feasibility of Collaborative Program.** The Council of Carolinas Writing Program Administrators (CCWPA) represents program directors from most public and many private NC institutions. The group meets formally twice a year and communicates about curricula and policy through its listserv. As a member of this organization, UNC Charlotte's University Writing Program (UWP) administrators stay in contact with writing programs across both Carolinas, creating research and other collaborations as possible. Mindful of the need for nonduplication, exchanges about current and future degrees is a focus of interchanges.

Faculty from UNC Charlotte's University Writing Program will collaborate with East Carolina University in the development of a professional writing degree. They are designing a curriculum that complements the program at UNC Charlotte.

- 12. Other Considerations.** None.

III. Summary of Review Processes

Campus Review Process and Feedback. The proposal was reviewed by the UNC Charlotte faculty, department and university curriculum committees, the provost, and chancellor. Approval was obtained at all levels.

UNC System Office Review Process and Feedback. Throughout the review process, UNC Charlotte provided relevant information pertaining to program requirements and resources. The

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institution submitted appropriate documentation and research to support its statements. Reviewers evaluated the requests and did not request further information.

IV. Recommendation

It is recommended that the Board of Governors approve UNC Charlotte's request to establish a Bachelor of Arts in Writing, Rhetoric, and Digital Studies degree program (CIP 23.1301) to enroll students starting fall 2019.

**Request for Authorization to Establish a
Bachelor of Arts in Environment and Sustainability
(BA, CIP 03.0103) at
The University of North Carolina at Greensboro**

I. Program Highlights

- The University of North Carolina at Greensboro’s proposed Bachelor of Arts in Environment and Sustainability degree program would prepare graduates for careers in the field of environment and sustainability, including Sustainable Manufacturing, Renewable Energy, and Environmental Conservation/Energy Efficiency.
- The proposed degree program will require 120 credit hours for completion, including at least 36 semester credit hours above the 300 level.
- One hundred full-time students and twenty-five part-time students are projected in the first year. One hundred, twenty-five full-time students and twenty-five part-time students are projected by the fourth year.
- Two new faculty positions will be needed to support the proposed degree program.
- No enrollment increase funds or additional state appropriations are requested. No tuition differential or program-specific fees will be sought to support the proposed degree program.
- The resources of UNC Greensboro’s library are adequate to support the proposed degree program.
- The facilities are adequate to support the proposed degree program, which has existed as a concentration since 2007.

II. BOG Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** Three institutions in the UNC System offer similar on-campus programs, including Appalachian State University, University of North Carolina at Chapel Hill, and University of North Carolina Wilmington. These programs differ from the proposed degree program because they generally have a focus on geography, earth sciences, and/or marine sciences in their curricula.
2. **Relation to Campus Distinctiveness and Mission.** The proposed degree program contributes the mission of UNC Greensboro to be “a source of innovation and leadership meeting social, economic, and environmental challenges in the Piedmont Triad, North Carolina, and beyond.” Moreover, the level of attention to individual students in the existing concentration matches another element of the mission to be “a learner-centered, accessible, and inclusive community fostering intellectual inquiry to prepare students for meaningful lives and engaged citizenship.”
3. **Demand (local, regional, state).** NCWorks describes jobs in the field of environment and sustainability as Sustainable Manufacturing, Renewable Energy, and Environmental Conservation/Energy Efficiency. In September 2018, the organization listed a total of 1,923 state-wide jobs in this category. Among states in the southeast, North Carolina has third largest number of “clean economy” jobs. Between 2003 and 2010, the number of these jobs in North Carolina increased from 52,780 to 78,881 (Brookings Institution, 2011).

4. **Potential for Unnecessary Duplication.** Three institutions in the UNC System offer similar on-campus programs, including Appalachian, UNC-Chapel Hill, and UNC Wilmington. However, none is specifically designated as a Bachelor of Arts in Environment and Sustainability. In addition, the proposed degree program has existed as a concentration since 2007 and does not represent any additional program duplication. Enrollment in the concentration has tripled in the past three years, suggesting that the proposed degree program would meet a demonstrated need at UNC Greensboro.
5. **Employment Opportunities for Graduates.** The Bureau of Labor Statistics (BLS) predicts 11% growth in the broad category of Environmental Scientists and Specialists between 2016 – 2026, faster than the national average (approximately 7%) for other professions.
6. **Faculty Quality and Number.** Two new faculty positions will be requested. The proposed program, as it grows, may provide minimal enrollment increase in existing major courses and minimal increases in existing non-major courses. It may change the makeup of existing faculty course loads to include more courses specific to the program. Given the existence of a program concentration that has grown steadily in recent years to high enrollment (circa 125 majors as of fall 2018), there should be no adverse impacts on the activities of existing faculty.
7. **Availability of Campus Resources (library, space, etc.)** The holdings and resources of UNC Greensboro's libraries include print volumes, journals, magazines, and newspapers, and electronic databases. In addition, the library provides targeted financial allocations and general support as well as liaison librarians trained in information literacy instruction. Two new librarians are responsible for working with the Department of Geography, Environment, and Sustainability. Journals are funded through multidisciplinary allocation, not by individual department. UNC Greensboro has multidisciplinary journal packages through numerous top environment and sustainability publishers: Wiley, Taylor & Francis, Elsevier, SAGE, Springer, Oxford University Press, Cambridge University Press, and others. The combined libraries and databases will provide adequate resources to support the proposed degree program.

The Department of Geography, Environment, and Sustainability is housed on the first, second, and part of the fourth floors of the Franklin Porter Graham Building on the UNCG campus. A variety of classroom and laboratory spaces are found on these floors. The Department houses a three major lab spaces – the Geographic Information Science Lab, the Carolina Tree-ring Science Lab, and the Regolith Analysis Lab – along with other teaching labs and standard university classrooms. In addition, the Dept. of GES has a variety of equipment for field-based research and teaching including many handheld GPS receivers, mechanical and electronic surveying levels, clinometers, and stadia rods, inflatable rafts, sediment coring equipment, tools for soil probing and excavation, waders for shallow water access, current meters for streamflow measurement, increment borers for tree-ring studies, and field sensors and meters for studies of environmental magnetism. The facilities are adequate to support the proposed degree program, which has existed as a concentration since 2007.

8. **Relevant Lower-level and Cognate Programs.** Environmental studies and sustainability studies are very broad interdisciplinary subjects, which means that students with all variety of backgrounds are admissible. At UNC Greensboro, there are three primary undergraduate programs that are all healthy and excellent potential collaborators. These are the BA in Geography

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(in the same department as EVS), the BA and BS degrees in Biology, and the BS in Sustainable Tourism and Hospitality. All three programs have strong enrollment and broad faculty expertise, and students from each program would be capable of double-majoring or taking classes within EVS or switching between the programs. Additionally, the high school Advanced Placement course in environmental science functions as a feeder program into environmental and sustainability studies at the university level. There is adequate support and no expansion or improvements are necessary.

- 9. Impact on Access and Affordability.** No enrollment increase funds or additional state appropriations are requested. No tuition differential or program-specific fees will be sought to support the proposed degree program.

Tuition and fees for fall 2019 are as follows:

Full-Time Undergraduate Residents (in Dollars)

Category	Resident	Non-Resident
Tuition	4,422 .00	19,581.00
Mandatory Fees (Activities, Athletics, Health, Debt Service, Campus Safety, ASG)	2,866.00	2,866.00
Special Fees (Program Specific)	N/A	N/A
Application Fee (Program Specific)	N/A	N/A

- 10. Expected Quality.** The measures used to evaluate the proposed degree program will include enrollment, student acquisition of program learning outcomes, graduation rates, and employment following graduation.

- 11. Feasibility of Collaborative Program.** UNC Greensboro's current environment and sustainability concentration is of sufficient size and scope, and of relatively low resources, that such opportunities for collaboration have not yet been pursued.

- 12. Other Considerations.** None.

III. Summary of Review Processes

Campus Review Process and Feedback. The proposal was reviewed by the UNC Greensboro faculty, department and university curriculum committees, the provost, and chancellor. Approval was obtained at all levels.

UNC System Office Review Process and Feedback. Throughout the review process, UNC Greensboro provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support its statements. Reviewers evaluated the requests and did not request further information.

IV. Recommendation

It is recommended that the Board of Governors approve UNC Greensboro's request to establish a Bachelor of Arts in Environment and Sustainability degree program (CIP 03.0103) to enroll students starting fall 2020.

**Request for Authorization to Establish a
Bachelor of Science in Geography
(B.S., CIP 45.0701) at
The University of North Carolina at Greensboro**

I. Program Highlights

- The University of North Carolina at Greensboro's proposed Bachelor of Science in Geography degree program would prepare graduates for careers and advanced research in physical geography, human geography, planning, and geographic information science.
- UNC Greensboro already offers the Bachelor of Arts in Geography, which offers a broad-based education that encompasses other disciplines. The proposed Bachelor of Science in Geography degree program would provide a more focused, concentrated knowledge and familiarity with specialized and technical geographic subjects (like geographic information science, which uses remote sensing and spatial analysis software). The proposed program would give students greater exposure to technical and applied aspects of the discipline, which is increasingly desired in their job market.
- The proposed degree program will require 120 credit hours for completion, including 33-34 credit hours for the general education core, 9-22 credit hours from the College of Arts and Sciences, and 64-78 credit hours from the major plus electives.
- Five full-time students are projected in the first year. Twenty full-time students are projected by the fourth year.
- No new faculty positions will be needed to support the proposed degree program.
- No enrollment increase funds or additional state appropriations are requested. No tuition differential or program-specific fees will be sought to support the proposed degree program.
- The resources of UNC Greensboro's library are adequate to support the proposed degree program.
- The facilities are adequate to support the proposed degree program.

II. BOG Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** Six institutions in the UNC System offer similar on-campus programs: Appalachian State University, East Carolina University, Fayetteville State University, University of North Carolina at Chapel Hill, University of North Carolina at Charlotte, and University of North Carolina Wilmington.
2. **Relation to Campus Distinctiveness and Mission.** The proposed degree program contributes the mission of UNC Greensboro to be "a source of innovation and leadership meeting social, economic, and environmental challenges in the Piedmont Triad, North Carolina, and beyond."
3. **Demand (local, regional, state).** The Bureau of Labor Statistics predicts 13% growth for urban and regional planning, 10% growth for hydrology, and 14% for the geosciences in the period between 2016 – 2026. Industries such as FedEx, with its air hub in Greensboro, offer job opportunities such as transportation logistics, while the Research Triangle Park and other areas have use for urban and regional planning.

- 4. Potential for Unnecessary Duplication.** Six institutions in the UNC System offer similar on-campus programs: Appalachian, ECU, FSU, UNC-Chapel Hill, UNC Charlotte, and UNC Wilmington. The proposed degree program would differ by offering a concentration in Earth Science. The main area of overlap in the existing programs is the concentration in geographic information systems (GIS). Given that GIS is the most rapidly growing subfield in geography, and demand on the UNC Greensboro campus continues to increase, the proposed degree program may meet a need in the discipline. Only three of the existing programs are offered as a Bachelor of Science, like the proposed degree program. In addition, the existing programs are offered on campus, and some student populations in the Triad area may have difficulty commuting to locations outside the region.
- 5. Employment Opportunities for Graduates.** The Bureau of Labor Statistics predicts 13% growth for urban and regional planning, 10% growth for hydrology, and 14% for the geosciences in the period between 2016 – 2026. These estimates exceed the national average (approximately 7%) for other professions.
- 6. Faculty Quality and Number.** No new faculty positions will be requested.
- 7. Availability of Campus Resources (library, space, etc.)** The UNC Greensboro library has adequate holdings and support, consisting of materials and resources currently serving the existing BA in Geography program. The library website provides online tutorials, frequently asked questions, and an online chat service to help students navigate various pathways for data and information. The library also provides support from a geography librarian.

The library's collections include more than 2.47 million books, federal and state documents, microforms, and other formats. The bound volume total is over 1,200,000 and more than 41,000 items are added to the collections each year. There are more than 37,000 full-text electronic journals available, along with up to 331,000 electronic book packages from Cambridge University Press, Oxford University Press, and other publishers.

The Department of Geography, Environment, and Sustainability is housed on the first, second, and part of the fourth floors of the Franklin Porter Graham Building on the UNC Greensboro campus. A variety of classroom and laboratory spaces are found on these floors. The department houses three major lab spaces – the Geographic Information Science Lab, the Carolina Tree-ring Science Lab, and the Regolith Analysis Lab – along with other teaching labs and standard university classrooms. The facilities are adequate to support the proposed degree program.
- 8. Relevant Lower-level and Cognate Programs.** The proposed degree program requires no cognate programs for support.
- 9. Impact on Access and Affordability.** No enrollment increase funds or additional state appropriations are requested. No tuition differential or program-specific fees will be sought to support the proposed degree program.

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Tuition and fees for fall 2019 are as follows:

Full-Time Undergraduate Residents (In Dollars)

Category	Resident	Non-Resident
Tuition	4,422 .00	19,581.00
Mandatory Fees (Activities, Athletics, Health, Debt Service, Campus Safety, ASG)	2,866.00	2,866.00
Special Fees (Program Specific)	N/A	N/A
Application Fee (Program Specific)	N/A	N/A

10. Expected Quality. The measures used to evaluate the proposed degree program will include enrollment, student acquisition of program learning outcomes, graduation rates, and employment following graduation.

11. Feasibility of Collaborative Program. UNC Greensboro established a regular research colloquium series that features speakers from all UNC System geography programs. The primary sources of collaborative interaction are available through shared colloquia speakers and campus visits during an annual Geography Bowl contest event sponsored by UNC Greensboro.

12. Other Considerations. None.

III. Summary of Review Processes

Campus Review Process and Feedback. The proposal was reviewed by the UNC Greensboro faculty, department and university curriculum committees, the provost, and chancellor. Approval was obtained at all levels.

UNC System Office Review Process and Feedback. Throughout the review process, UNC Greensboro provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support its statements. Reviewers evaluated the requests and did not request further information.

IV. Recommendation

It is recommended that the Board of Governors approve UNC Greensboro's request to establish a Bachelor of Science in Geography degree program (CIP 45.0701) to enroll students starting Fall 2020.

**Request for Authorization to Establish a
Bachelor of Science in Respiratory Therapy
(BS, CIP 51.0908) at
University of North Carolina Wilmington**

I. Program Highlights

- University of North Carolina Wilmington's proposed Bachelor of Science in Respiratory Therapy degree program would prepare graduates for careers in the field of respiratory care.
- The proposed degree program will require 120 credit hours for completion. The regular-term instruction (RTI) option will require 60 hours of core respiratory therapy courses and 60 credit hours for general education and elective courses. RTI students will have clinical experiences embedded throughout the curriculum. The online, accelerated program (OAP) option will require 39 hours of core major courses.
- Twenty-five full-time RTI (on campus) students, 75 full-time OAP (online) students, and 50 part-time OAP students are projected in the first year. Fifty full-time RTI students, 227 full-time OAP students, and 151 part-time OAP students are projected by the fourth year.
- Six new faculty positions will be requested in the first year, with a total of 20 in four years.
- State appropriation funds will be requested based on the Semester Credit Hour Enrollment Change Funding Model for credit hours resulting from the proposed degree program. No tuition differential or program-specific fees will be sought to support the proposed degree program.
- The resources of UNC Wilmington's library are adequate to support the proposed degree program.
- The proposed degree program (to begin in fall 2021) would use the new Veterans Hall (scheduled for completion in fall 2020) and the existing College of Health and Human Sciences' Simulation Learning Center located in McNeill Hall.

II. BOG Academic Program Planning Criteria (UNC Policy 400.1)

1. **Existing Programs (Number, Location, Mode of Delivery).** Only one institution in the UNC System offers the BS in Respiratory Therapy: University of North Carolina at Charlotte, administered on campus and online. It is a degree completion program targeting practicing registered respiratory therapists possessing associate degrees.
2. **Relation to Campus Distinctiveness and Mission.** The mission of UNC Wilmington emphasizes the institution's commitment to establishing programs "in areas of expertise that serve state needs." Both in North Carolina and nationally, the demands of an aging population have increased the need for trained therapists to provide respiratory care. The proposed degree program supports this commitment by addressing the increased need across North Carolina for respiratory care therapists.
3. **Demand (local, regional, state).** The Education Advisory Board conducted a feasibility study in 2016, identifying respiratory therapy as a high priority, given growth rates and increased rates of respiratory illness and treatment. Burning Glass Labor/Insight data indicated that employer demand in North Carolina increased 34% (and 40% nationally) from 2014 to 2017. The Bureau of Labor Statistics projected that employment of respiratory therapists will increase 23% nationally in the period between 2016 – 2026.

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UNC Wilmington intends to pursue Commission on Accreditation of Respiratory Care (CoARC) accreditation for the proposed degree program. The curriculum was designed to align with CoARC requirements and best practices, as well as the standards of the National Board of Respiratory Care. Graduate respiratory therapists are required to pass the NBRC board exam and students must graduate from a CoARC accredited program in order to sit for the exam. All 50 states require a degree from a CoARC accredited program for licensure. CoARC's recent decision to discontinue initial accreditation of associate degree programs creates a growing market space for graduates of accredited bachelor's degree programs, as this is the entry-level credential for practicing respiratory therapists.

- 4. Potential for Unnecessary Duplication.** One institution in the UNC System offers a similar program: University of North Carolina at Charlotte. Its degree-completion program is designed to help practicing respiratory therapists with associate degrees to obtain a bachelor's degree in the field. However, the demand in the state suggests that the proposed degree program would meet a need in the job market. No other institution in the UNC System offers a four-year residential experience and no private schools in the state offer the degree.
- 5. Employment Opportunities for Graduates.** Burning Glass Labor/Insight data indicated that employer demand in North Carolina increased 34% (and 40% nationally) from 2014 to 2017. The Bureau of Labor Statistics projected that employment of respiratory therapists will increase 23% nationally in the period between 2016 – 2026.
- 6. Faculty Quality and Number.** Six new faculty positions will be requested in the first year, with a total of 20 in four years.
- 7. Availability of Campus Resources (library, space, etc.)** The UNC Wilmington William Madison Randall Library provides strong support for health-related programs via specialized databases, journals, eBooks, streaming video, and other resources. The library also provides a dedicated librarian to the College of Health and Human Sciences and its faculty and students. This individual assists in developing program-specific resources based on faculty and student requests.

The library provides access to multidisciplinary aggregator databases such as ProQuest Central and Academic Search Elite, in addition to numerous subject-specific databases appropriate for the proposed degree program, including the Cumulative Index to Nursing and Allied Health Literature (CINAHL) Plus with Full Text, ProQuest Health and Medical Collection, ScienceDirect, and Web of Science.

The proposed degree program requires facilities to deliver both didactic and clinical elements. UNC Wilmington is currently constructing a new allied health sciences building (Veterans Hall), projected for completion concurrent with the proposed degree program (fall, 2021). The facility will provide approximately 85,000 square feet of space featuring multiple state-of-the-art teaching and research laboratories, faculty offices, clinics, and classrooms. Capital equipment costs will be included in the construction of the building. The new building will also allow for the development of an on-campus clinic providing healthcare services to students, faculty, staff, and community members, while serving as an applied learning classroom for students.

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Beyond the new Veterans Hall, the proposed degree program will utilize the College of Health and Human Sciences' Simulation Learning Center located in McNeill Hall to support clinical elements of the curriculum. The Simulation Learning Center uses high, medium, and low fidelity human patient simulators as teaching and learning tools for healthcare delivery education.

- 8. Relevant Lower-level and Cognate Programs.** The proposed degree program requires no cognate programs for support. Students who pursue the regular-term instruction option will be classified as pre-respiratory therapy majors or pre-health profession majors. UNC Wilmington's University College advisors will advise these students. Accordingly, students would complete the required University Studies program (general education curriculum). Students interested in the online, accelerated program option will be considered as transfer students and will be advised by the CHHS Student Success advisors.
- 9. Impact on Access and Affordability.** State appropriation funds will be requested based on the Semester Credit Hour Enrollment Change Funding Model for credit hours resulting from the proposed degree program. New funding will support the hire of personnel, program operation, University Library support specific to the proposed degree program, University-level operational support costs, and marketing and recruitment activity.

No tuition differential or program-specific fees will be requested.

Tuition and fees for fall 2019 – spring 2020 are as follows:

Full-Time Undergraduate Residents (in Dollars)

Category	Resident	Non-Resident
Tuition	4,443 .00	18,508.00
Mandatory Fees (Activities, Athletics, Health, Debt Service, Campus Safety, ASG)	2,634.44	2,634.44
Special Fees (Program Specific)	N/A	N/A
Application Fee (Program Specific)	N/A	N/A

- 10. Expected Quality.** The measures used to evaluate the proposed degree program will include enrollment, student acquisition of program learning outcomes, graduation rates, and employment following graduation.
- 11. Feasibility of Collaborative Program.** NC Community College System representatives contributed to the proposal and UNC Wilmington plans to explore collaborative opportunities with them. Opportunities to collaborate with UNC Charlotte through course offerings, online and residential instruction, clinical supervision, and guest lectures will be explored.

12. Other Considerations. None.

III. Summary of Review Processes

Campus Review Process and Feedback. The proposal was reviewed by the UNC Wilmington faculty, department and university curriculum committees, the provost, and chancellor. Approval was obtained at all levels.

UNC System Office Review Process and Feedback. Throughout the review process, UNC Wilmington provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support its statements. Reviewers evaluated the requests and did not request further information.

IV. Recommendation

It is recommended that the Board of Governors approve UNC Wilmington's request to establish a Bachelor of Science in Respiratory Therapy degree program (CIP 51.0908) to enroll students starting fall 2021.