## Request for Authorization to <u>Establish</u> Bachelor of Science (BS) in Health and Wellness Promotion CIP 51.2207 Elizabeth City State University

### I. Program Highlights

- Elizabeth City State University proposes the establishment of a Bachelor of Science (BS) in Health and Wellness Promotion.
- The proposed program is an applied, interdisciplinary online degree program (120 credit hours) designed to prepare graduates for careers in health care and health-related professions: community health workers, health education specialist, administrative services managers, health care social workers, and public relations specialists.
- The establishment of the proposed degree is consistent with ECSU's 2020-25 Strategic Goal 1.4 to expand our degree offerings to align with community needs, and Goal 6 to promote regional economic, social, and environmental development. The proposed new online degree program addresses extreme health disparities in the region and on campus.
- Health and Wellness Promotion is an applied health degree program that will increase the connection of ECSU students and faculty to their communities. The program will prepare graduates who have the competencies required by the National Wellness Institute for certification as wellness practitioners.
- The proposed program will help fill a gap in the health care field by graduating qualified individuals who can enter the health and wellness workforce. A *Lightcast* analysis of public health education and promotion bachelor's programs in the state found that new job postings in these fields outnumbered the number of new graduates by 10-to-1 in 2022, with 11 percent job growth in North Carolina projected by 2027, two percentage points higher than the national average.
- Students who complete this online degree program are qualified to sit for the wellness practitioner certification, which makes graduates immediately marketable in the rapidly growing, well-paying health and wellness field. Note that students can earn this health care credential with an undergraduate degree.
- Graduates will be prepared to enter the workforce as health promotion specialists, community health consultants, health educators, or employee wellness program coordinators. Based on the projected annual growth rate in this field, our graduates will be successful in obtaining well-paying jobs.
- The projected enrollment at year five is 56 full-time students.

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

1. Relation to Campus Distinctiveness and Mission. The Center for Health Disparities located at East Carolina University released a report in 2023<sup>1</sup> that shows how severe health issues are in eastern North Carolina. Specifically, this report indicates that counties surrounding ECSU have some of the most severe health problems in North Carolina, including high rates of cancer, cardiovascular disease, and diabetes. The establishment of the online degree in Health and Wellness Promotion supports UNC System 2022-27 Strategic Goal 8: Increase the System's contribution to the state's critical workforces. This new degree program will increase the number of well-prepared,

<sup>&</sup>lt;sup>1</sup> <u>https://healthdisparities.ecu.edu/</u>

credentialed health providers in our state and region.

## 2. Student Demand.

There is only one UNC System institution, University of North Carolina Asheville, currently offering a degree in Health and Wellness Promotion. According to the NC Tower database, the degree program at UNC Asheville has been a consistent performer with a stable number of majors (approximately 120) and graduates (approximately 45) each year since data for the program began in the 2008-09 academic year. ECSU expects similar responses based on the increased requests from students and prospective students about an online degree option in the health field. ECSU's program would be the first four-year online program for the UNC System. The other online program offered by a North Carolina institution is housed at Johnson & Wales University in Charlotte.

- **3.** Employment Opportunities for Graduates. The online degree program in Health and Wellness Promotion will fill a gap in health education for North Carolina and the surrounding area. A *Lightcast* analysis of undergraduate public health education and promotion programs in the state found that new job postings in these fields outnumbered the number of new graduates by 10-to-1 in 2022, with 11 percent job growth in North Carolina projected by 2027, two percentage points higher than the national average, with over 1,000 annual openings. Graduates of this program can expect to find jobs with titles that include health educator, employee wellness program coordinator, public relations specialist, administrative services manager, health care social workers, community health workers, and health education specialist. Given the health inequities identified in rural northeast North Carolina and the continued rapid growth of the Hampton Roads / Virginia Beach / Norfolk Metropolitan Region (including Elizabeth City), job opportunities in this rapidly growing field will be readily available for ECSU graduates.
- 4. Impact on Access and Affordability. The proposed degree program will increase access to a health-related profession by offering rigorous academic coursework in an online degree in Health and Wellness Promotion. Because the program will be offered online, students already in the workforce can further skills and advance careers. As an NC Promise institution, ECSU offers a four-year cost of \$5,548 for a North Carolina resident and \$21,548 for a nonresident. The U.S. Department of Labor indicates a median annual wage of \$60,600 for careers in this CIP code<sup>2</sup>. Students graduating from this program will have minimal student debt attributed to this program.

Elizabeth City State University is NOT requesting any program-specific fees or tuition differential for this program. Undergraduate tuition and fees for the 2023-24 full-time (12+ credit hour) rates are as follows.

Category	Resident	Non-Resident
Tuition	1,000.00	5,000.00
Tuition Differential		
Mandatory Fees (Educational	387	387
& Technology, Campus		
Security, ASG)		

Full-Time AY2023-2024 Undergraduate Tuition and Fees per Year (In Dollars)

<sup>&</sup>lt;sup>2</sup> https://blog.dol.gov/2022/06/06/working-for-wellness-careers-that-promote-a-healthy-lifestyle

Special Fees		
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- 5. Expected Quality. The program's key objective is to prepare qualified graduates to meet the National Wellness Institute (NWI) requirements to become Certified Wellness Practitioners. The Wellness Promotion Competency Model consists of 27 competencies organized into five domains. The evaluation of the Health and Wellness Promotion program will analyze the five domains using a mixed-methods assessment approach: objective, quantitative and subjective, and qualitative. The National Wellness Institute's Wellness Practitioner Certification Exam will serve as the external instrument to determine quality of program offerings.
- 6. Faculty Quality and Number. All directly involved faculty are housed in the Department of Health and Human Studies, which includes degree programs in kinesiology, psychology, pharmaceutical science, and social work. The kinesiology faculty consists of one full professor and three associate professors. The psychology faculty consists of two full professors and one associate. The pharmaceutical science faculty consists of one full professor, one associate, and one assistant. The social work faculty consists of two full professors and two lecturers. All faculty have received pedagogical training and work collaboratively on research initiatives.
- 7. Relevant Lower-level and Cognate Programs. The proposed interdisciplinary online degree program builds on existing coursework in health, kinesiology, psychology, and social work. The existing courses included in this degree program are all housed in the university's Department of Health and Human Studies within the School of Science, Aviation, Health, and Technology. Students will have 24 credits of free electives and a required three-credit-hour internship.
- 8. Availability of Campus Resources Library, Space, etc.) The library holdings are adequate to meet both the needs of the currently existing programs in the Department of Health and Human Studies and the proposed degree. The ECSU library currently has access to multiple databases that give students and faculty access to current research in the field of health and wellness promotion, including the *American Journal of Health Promotion*. The new degree program will not require any new space.
- **9.** Existing Programs (Number, Location, Mode of Delivery). UNC Asheville is the only UNC System institution currently offering a degree in health and wellness promotion. There are eight other UNC Systems institutions (Appalachian State University, East Carolina University, Fayetteville State University, North Carolina Central University, University of North Carolina at Charlotte, University of North Carolina at Greensboro, University of North Carolina at Pembroke, and University of North Carolina Wilmington) offering degrees in public health or public health education. These degrees are delivered on-campus with the exception of UNC Greensboro's degree-completion program, which requires that students to have already earned an associate degree or above to be admitted.
- **10.** Potential for Unnecessary Duplication. The ECSU Health and Wellness Promotion degree would be the only fully online undergraduate degree offered by a public university in North Carolina. It would be the second public university to offer the degree program, and the only program offered through an HBCU in North Carolina

**11.** Feasibility of Collaborative Program. The existing academic programs in the Department of Health and Human Studies have a range of partnerships with community-based organizations, higher education institutions, and active grants from federal, state, and private sources. As program affiliated faculty begin to form new external partnerships for student internships and practicum experiences, they will explore opportunities to collaborate with these new partners on externally funded projects. ECSU's Health and Wellness Promotion affiliated faculty have already begun work on a new collaborative initiative, the HBCU Health Equity Data Consortium, funded by the North Carolina Department of Health and Human Services. The university partners include North Carolina Agricultural and Technical State University, Winston-Salem State University, Johnson C. Smith University, and Shaw University.

#### III. Summary of Review Processes

- Campus Review Process and Feedback. The following individuals and deliberative bodies reviewed and approved the proposal for the BS in Health and Wellness Promotion at ECSU, according to the established curriculum review process on campus: the curriculum committee of the Department of Health and Human Studies; curriculum committee of the School of Science, Aviation, Health, and Technology; dean of the school; University Curriculum Committee; provost; Academic and Administrative Planning Council (AAPC); vice chancellor for Business and Finance; and chancellor.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, ECSU provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approves the request from Elizabeth City State University to establish the Bachelor of Science (BS) in Health and Wellness Promotion (CIP 51.2207) effective fall 2024.

## Request for Authorization to <u>Establish</u> Bachelor of Science (BS) in Health Sciences CIP 51.0000 Appalachian State University

### I. Program Highlights

- Appalachian State University proposes the establishment of a Bachelor of Science (BS) in Health Sciences.
- The BS in Health Sciences program provides a flexible and individualized pathway for allied health
  professionals with Associate of Applied Science (AAS) degrees from within the North Carolina
  Community College System (NCCCS) to complete a bachelor's degree. The proposed degree
  program is in strong alignment with App State's mission and strategic priorities, including the
  goals of providing exceptional educational experiences, advancing local and regional engagement,
  and advancing equity and inclusion.
- The program provides a flexible pathway for students to earn a bachelor's degree from App State online, in Boone, or in Hickory. The program's flexibility will support the individualized needs of students based on career goals. Since the program of study counts at least 30 credit hours of students' AAS allied health coursework toward the degree, students should be able to graduate within two years. This program is distinct from other health sciences programs in the System because it specifically caters to AAS allied health transfer students and transfer agreements with NC Community College System institutions rather than designed as a traditional four-year program.
- There is an ongoing need for health professionals and allied health professionals, leaders, supervisors, and instructors in North Carolina. The Bureau of Labor Statistics projects that health careers will grow faster than the average of all occupations between 2022 and 2032. A *Lightcast* analysis of health care positions for northwest North Carolina shows: (1) positions requiring a bachelor's degree have remained steady, showing marginal increases from January 2022 to January 2024; (2) the average published salary for these advertised positions has dropped two percent, to \$86,000 which is \$36,000 higher than the \$50,000 advertised average for health positions requiring just an associate's degree; and (3) almost half of positions advertised require 10 or more years of experience.
- This degree program will provide graduates with the skills to advance into leadership and supervisory positions in allied health disciplines, to teach AAS courses at community colleges, and to pursue graduate health degrees.
- Job occupation categories for graduates holding this degree include: health care manager, nursing supervisor, sales manager, project manager, product manager, customer service manager, business analyst, and medical director.
- Projected enrollment at year five is 18 full-time and 37 part-time students.

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

 Relation to Campus Distinctiveness and Mission. App State is a long-established public institution that honors its founding commitment to educational access and excellence and its rural mountain heritage through teaching, research, and service. It supports the mission and strategic plan of the University of North Carolina System, including student access, affordability and efficiency, economic impact, and community engagement. In keeping with these goals, the proposed BS in Health Sciences program will deliver a focused curriculum that enables students with AAS degrees to progress on educational pathways and achieve professional goals. The program expands educational access to rural and underserved communities, ensuring equitable opportunities for student success.

- 2. Student Demand. The proposed program is specifically catered to graduates of allied health AAS programs from North Carolina community colleges. There are seven community colleges within an hour and 15 minutes' drive of App State's Hickory campus that award allied health degrees: Caldwell Community College and Technical Institute; Catawba Valley Community College; Mayland Community College; McDowell Technical Community College; Mitchell Community College; Western Piedmont Community College; and Wilkes Community College. These seven community colleges enrolled 1,401 students into health sciences programs in fall 2022. There were almost 20,000 enrollments across all North Carolina Community Colleges. Survey data from allied health AAS students at Caldwell Community College and Technical Institute, Catawba Valley Community College, and Western Piedmont Community College and Technical Institute, Catawba Valley Community College, and Western Piedmont Community College and Technical Institute, Catawba Valley Community College, and Western Piedmont Community College indicates 88 percent of current students are strongly interested in pursuing a bachelor's degree after earning their AAS. Health deans from these community colleges have also expressed strong support for this program.
- 3. Employment Opportunities for Graduates. The Bureau of Labor Statistics projects that health careers will grow faster than average occupations between 2022 and 2032. An analysis of public health job postings across the country identified the following skills as highly desirable: oral and written communication, cultural competency, and program management. The most prevalent job titles in the sample were community health educator, community health worker, and prevention specialist. In the BLS data, more than 78 percent of the job postings reviewed required a bachelor's degree and relatively limited experience (less than five percent required four or more years of experience) (Kedia et al. 2023). However, a Lightcast analysis of advertised job postings in northwest North Carolina requiring a bachelor's degree indicated that almost half of positions requested 10 or more years of experience. Graduates of the health sciences program will advance their careers through leadership and supervisory positions across allied health disciplines, satisfying the requirements to teach allied health courses at community colleges, and to pursue graduate health degrees. There is an ongoing need for health professionals and allied health professionals in North Carolina as well as leaders and managers in these fields. For instance, a search of health positions on NCworks.gov found over 1,000 current job postings for allied health, over 5,000 for health managers, and over 10,000 for health practitioners. One national study in Health Affairs predicts that more than 50 percent of current state and local public health department employees will have left their jobs or retired between 2021 and 2025, in part due to stress and burnout from the pandemic (Leider et al. 2023). There is also a need for faculty qualified to teach in community college allied health programs.
- 4. Impact on Access and Affordability. This program is designed to be flexible, affordable, and accessible, with the opportunity for students to complete their degree online. Because this degree completion program aligns with AAS coursework, many allied health continuing students who wish to obtain a bachelor's degree will enroll for just two additional years of higher education that can be done while the student maintains employment. It is anticipated that these degree-completion students will take approximately two years to complete the BS in Health Sciences program. The Bureau of Labor Statistics shows that the median annual wage for health care workers is higher than the median annual wage for all occupations, particularly for those who are

in leadership or management positions<sup>1</sup>. According to a recent *Lightcast* report, North Carolina employment opportunities for persons holding a bachelor's degree in allied health from 2022 to 2027 are two percentage points above the national average, which increased over nine percent from 2022 to 2027. Another *Lightcast* analysis also indicated that almost half of advertised positions requiring a bachelor's credential also requested 10 or more years of experience. This program allows graduates to advance their careers and move into senior-level and managerial positions, presumably leading to increased earnings and further opportunities for advancement.

App State is not requesting any program-specific fees or tuition differential for this program. Undergraduate tuition and fees for the 2023-24 full-time (12+ credit hours) rates are as follows:

Category	Resident	Nonresident
Tuition	4,242.00	21,238.00
Tuition Differential		
Mandatory Fees (Athletics,	3,139.00 (Boone/Hickory)	3,139.00 (Boone/Hickory)
Student Activities, Health	654.00(online)	654.00 (online)
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		
Special Fees		

Full-Time AY 2023-2024 Tuition and Fees per Year (In Dollars)

- 5. Expected Quality. As part of the Department of Nutrition and Health Care Management, BS in Health Sciences students will also have co-curricular opportunities that will give them access to a network of health professionals and leaders. This program comprises existing courses that have been approved by the university's Academic Policies and Procedures Committee and will be part of the Beaver College of Health Sciences, which has a history of providing successful, high-quality programs online, in Boone, and in Hickory. The college is well connected with employers and practitioners in the region, many of whom provide internship and volunteer opportunities for students. Students interested in graduate health programs will have access to the Health Professions Advising Office, which ensures students have appropriate prerequisite coursework and experiences for graduate programs. To ensure academic quality, this program will undergo annual reviews of student learning outcomes and of the program as a whole. Every seven years, the program will undergo a much more comprehensive review, which includes a lengthy self-study with substantial documentation of assessment trends and reports from external reviewers and site visitors.
- 6. Faculty Quality and Number. The Beaver College of Health Sciences has a strong pool of both fulltime and adjunct instructors in the region, many of whom hold leadership positions at health care organizations. A planned position for program director will join a robust Department of Nutrition and Health Care Management with 19 faculty members holding terminal degrees and three with professional graduate/clinical degrees. All faculty, including adjunct instructors, are reviewed annually and have the opportunity for continued professional development and mentoring through the Beaver College of Health Sciences as well as through the university's Center for Teaching and Learning for Student Success.

<sup>&</sup>lt;sup>1</sup> https://www.bls.gov/ooh/management/medical-and-health-services-managers.htm

- 7. Relevant Lower-level and Cognate Programs. This program builds upon the knowledge, skills, and expertise students obtain in allied health AAS degree programs within the NC Community College System. Students will take interdisciplinary courses at App State alongside students seeking degrees in other STEM (science, technology, engineering, and mathematics) and health care fields including biology, chemistry, health care management, nutrition, public health, and social work.
- 8. Availability of Campus Resources (Library, Space, etc.) With the existing infrastructure and innovative classroom spaces in the 203,000-square-foot Leon Levine Hall of Health Sciences in Boone and the 225,800-square-foot building at App State's new Hickory campus, no additional facilities are needed. Technology and library resources are designed to support both in-person and online programs and students. With the increase in students pursuing the proposed new degree and additional student fees supporting the library, the college's library liaison determined there was no need for additional resources.
- **9. Existing Programs (Number, Location, Mode of Delivery).** There are two health sciences programs with a 51.000 CIP in the UNC System: Integrated Health Sciences at Western Carolina University and Health and Human Sciences at the University of North Carolina at Greensboro. These are both in-person programs and are geared toward traditional, four-year students.
- 10. Potential for Unnecessary Duplication. The two programs at WCU and UNC Greensboro are preprofessional programs for on-campus students interested in obtaining a graduate health professions degree. The proposed degree-completion program caters to graduates from community colleges who already have professional AAS degrees but would like to earn bachelor's degrees to advance their careers. In addition, this proposed program may be completed online or in person.
- **11. Feasibility of Collaborative Program**. The university already has established relationships with area community colleges that support the program. Although the proposed program is different from other health sciences programs at four-year institutions, the university could potentially partner with other institutions to share information about setting up unique partnerships with community colleges to support students with AAS degrees.

#### III. Summary of Review Processes

- Campus Review Process and Feedback. This proposal was reviewed and approved by App State faculty, the Beaver College of Health Sciences dean, the Undergraduate Academic Policies and Procedures Committee, the vice provost for undergraduate education, the vice provost of academic program development and strategic initiatives, the provost and executive vice chancellor, and the chancellor.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, App State provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

# IV. Recommendation

Staff recommends that the Board of Governors approve the request from Appalachian State University to establish the Bachelor of Science (BS) in Health Sciences (CIP 51.0000) effective fall 2024.

## Request for Authorization to <u>Establish</u> Degree Title BA in Data Science CIP 30.7001 University of North Carolina Chapel Hill

## I. Program Highlights

- The University of North Carolina at Chapel Hill proposes the establishment of a Bachelor of Arts (BA) in Data Science.
- The proposed degree will develop students' data science competencies and professional attributes for successful entry into a job market with high demand for these skills.
- The BA in Data Science aligns with UNC-Chapel Hill's core mission of education and research in service to the state, nation, and world. The degree also aligns with the university's strategic plan goals of "Discover: Pursue discovery through creative collaboration" and "Enable Career Development." It also aligns with the UNC System Office's strategic plan goal of "Increase STEM and Health Sciences Credentials by 2027."
- The BA in Data Science fulfills a growing need within and beyond the state by offering a curriculum that draws on existing programs, faculty expertise, and data science-related courses. It will offer students: (1) skill development in mathematics, statistics, computational foundations, ethics, and communication; (2) interdisciplinary learning communities to address the complexity of real-world issues; and (3) collaborative teamwork opportunities to apply data science skills to solve problems for business, marketing, research, and societal impact.
- The curriculum aims to go beyond basic competencies, providing opportunities to integrate analytic techniques across a broad variety of courses. The degree will offer flexibility to students, allowing them to customize the application of data science knowledge according to discipline-specific pathways or concentrations, such as sociology and geographic information science. The college expects to expand opportunities to pursue discipline-specific pathways if approved.
- Students who earn the BA may work in fields where large datasets are used to understand applied needs, for example, consumer information, make predictions for future behavior, use large geospatial datasets to identify trends around the country for such topics as low income, obesity, water use, etc. They will have some capacity for developing new tools for data analysis.
- Graduates can expect a strong job market with ample opportunities. The U.S. Bureau of Labor Statistics estimates a 36 percent growth in the data science profession from 2021 to 2031 as compared to the five percent growth rate for all occupations. The employment opportunities are broad and have demand for the applied BA graduate in data science as well as highly technical BS graduates.
- Projected enrollment at year five is 500 full-time students.

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

1. Relation to Campus Distinctiveness and Mission. Both the College of Arts and Sciences and the proposed BA in Data Science align with the university's mission "to serve as a center for research, scholarship, and creativity." The degree will offer students the opportunity to engage in learning and research founded on the college's commitment to collaboration and advancement of the public good throughout our 43 academic departments and to include the professional schools at UNC-Chapel Hill, especially the School of Data Science and Society. The college-administered Bachelor of Arts purposefully combines the delivery of analytical skills with hands-on application

to develop students' skills to lead "change to improve society and to help solve the world's greatest problems" and to "enhance the quality of life for all people in the State." The UNC-Chapel Hill Strategic Plan and FY24 budget priorities name "Discover: Pursue discovery through creative collaboration" and "Enable Career Development: Support student career preparation, staff professional development, and faculty career paths" as goals. The launch of the BA in Data Science degree leverages our existing faculty expertise and courses to advance these strategies specifically named in these institutional goals. The establishment of the BA also aligns with the UNC System Office strategic plan, "Higher Expectations." The BA in Data Science will advance its strategic plan goal to "Increase STEM and Health Sciences Credentials by 2027."

- 2. Student Demand. Current institutional data on UNC-Chapel Hill's data science minor suggests that the major will be in high demand. Enrollment in the minor has increased from 597 students in spring 2022 to 1,097 in spring 2023 (Infoporte, 2023). Further, data provided by the UNC-Chapel Hill registrar in July 2023 show that related majors (computer science, mathematics, statistics, and biostatistics) maintain high and consistent enrollments. It is anticipated that a portion of these majors, as well as students pursuing the minor in data science, will shift to the BA in Data Science either as single or double major. A conservative estimate for students pursuing BA in Data Science as a single major or double major in the first year is 200. By year three, an estimate of a cumulative enrollment of 400 students (juniors and seniors) is expected.
- 3. Employment Opportunities for Graduates. The careers available for data science graduates have outcomes and projected growth well above the national average. The data economy has generated demand for individuals trained in ethical data science analysis who can also effectively communicate findings. Harvard Business Review noted that advancements (e.g., predictive modeling like AI) are pushing organizations to build larger teams of data scientists with distinct roles, such as data engineers and AI specialists (Davenport & Patil, 2022). Multiple sectors view data science as an indispensable skillset and proven return on investment, making it one of the most promising professions according to U.S. Bureau of Labor Statistics (US BLS, 2022). The BLS projects the profession to grow 36 percent from 2021 to 2031 as compared to the five percent growth rate for all occupations (ibid). Glassdoor, a recruitment company combining multiple employment databases, ranks data scientist jobs as the third best profession with more than 6,500 openings in 2022. A parallel demand is seen at the international level as the World Economic Forum's Future of Jobs Report 2023 listed big-data analytics and AI as the number one emerging role in the world labor market. The state job market also offers opportunities as the arrivals of Apple and Google have solidified North Carolina as a major hub in the data economy. A search in June 2023 of the North Carolina Department of Commerce's NCWorks system using the term "data science" identified 197 jobs posted within that month. A June 2023 search of LinkedIn Jobs using keywords "data science" identified 215,946 entries. When restricted to North Carolina, LinkedIn Jobs identified 7,862 data science jobs. The employment opportunities are broad and have demand for the applied BA graduate in data science as well as highly technical BS graduates. Graduates will be positioned for these high-paying occupations that offer career opportunity, advancement, and ability to work remotely in any county in the state.
- 4. Impact on Access and Affordability. Graduates of the BA in Data Science will have a versatile mix of knowledge, analytical skills, and communication capabilities that employers in multiple sectors are seeking. The BA in Data Science develops applied analytical capacities and professional skills that position students to benefit from a strong job market. The careers available for Data Science graduates have outcomes and projected growth well above the national average. The U.S. Bureau

of Labor Statistics in 2022 estimated a 36 percent growth in the data science profession from 2021 to 2031 as compared to the five percent growth rate for all occupations; 13,500 openings in data science annually; and \$100,910 median annual pay for a data scientist with a bachelor's degree.

**5.** UNC-Chapel Hill IS **NOT** requesting any program-specific fees or tuition differential for this program.

Category	Resident	Nonresident
Tuition	7,019.00	37,360.00
Tuition Differential		
Mandatory Fees (Athletics, Student Activities, Health Services, Educational & Technology,	1,733.46	1,733.46
Campus Security, Debt Service, ASG)		
Special Fees		

Full-Time 2023-2024 Undergraduate Tuition and Fees per Year (In Dollars):

- 6. Expected Quality. The BA in Data Science will fulfill growing needs within and beyond the state by offering a curriculum that draws on existing programs, faculty expertise, and data science-related courses. The degree will offer students high-level development in five core competencies: foundations of data and information science, mathematical and statistics foundations, computational fundamentals, responsible data science, and communication. The degree will also offer students the opportunity to pursue a discipline-specific concentration to apply core competencies through interdisciplinary learning. The College of Arts and Science has a strong commitment to encourage and support students to pursue high-impact learning experiences through research and internships.
- 7. Faculty Quality and Number. The BA in Data Science will use existing courses and faculty within the College of Arts and Sciences as well as newly hired faculty in multiple disciplines, including neuroscience, health analytics, ecoinformatics, hydro-informatics, and the traditional quantitative departments of mathematics, statistics, and computer science. In support of the BA, the college will develop and administer new applied courses. Seat demand for these courses is expected to be high. To support demand for the major, the college has already hired about seven faculty and has four more searches ongoing. We will also work with the School of Data Science and Society to hire additional joint faculty in the next three fiscal years.
- 8. Relevant Lower-level and Cognate Programs. The university is also developing a BS in Data Science to be housed within the School of Data Science and Society. This major, concurrently submitted for approval, is the most similar degree at UNC-Chapel Hill to the BA in Data Science. Each degree serves different student needs. The BA emphasizes analytical skills and quantitative methods applied to real-world questions whereas the BS provides more training in in-depth quantitative methods, programming, and analytics. Both degrees offer students the opportunity to pursue a concentration, and these offerings will be developed with units across campus. The BA is an interdisciplinary degree whose courses draw from existing departments, such as public policy, earth and marine sciences, geography, sociology, and biology, as well as traditional units of mathematics, statistics and operations research, and computer science. In addition to providing courses for the BA, each of these units offers its own degrees. The BA in Data Science combines

competencies from these fields to prepare students with industry-specific skillsets for a growing field of study.

- **9.** Availability of Campus Resources (Library, Space, etc.) No additional library holdings are needed to support the instructional and research needs of the program. Existing courses for the major will continue to rely on current facilities until growth exceeds space availability.
- **10. Existing Programs (Number, Location, Mode of Delivery).** One other institution within the UNC System provides a BS in Data Science, University of North Carolina at Charlotte. The program is residential.
- **11.** Potential for Unnecessary Duplication. UNC Charlotte is the only other UNC System institution that offers an undergraduate degree in "data science." Its curriculum delivers practitioner-focused competencies in support of entry-level positions in the workforce for BS students. The UNC-Chapel Hill BA in Data Science delivers an applied data science and analytical coursework through quantitative methods, modeling, and analytics, enabling students to secure employment in positions that range from business and marketing to population data to sports analytics. A distinct feature of the BA is the ability for students to apply an interdisciplinary set of quantitative skills to specialize in a domain concentration that deepens knowledge in a specific field. Expectation is that the BA in Data Science could be combined in new and creative ways with other degree programs to expand the utility of their coursework in biology, pre-health, chemistry, art, and many other degrees. UNC-Chapel Hill conducts over \$1.2 billion of sponsored research annually and is home to top-ranked departments in the College of Arts and Sciences. Students will have access to research and educational experiences in many departments facilitated by the college's commitment to continued collaboration and interdisciplinary research.
- **12. Feasibility of Collaborative Program**. The university established a pan-campus steering committee for data science in the fall of 2019. The committee learned from University of Virginia and University of California, Berkeley, and carefully reviewed the National Academy of Sciences (NAS) report on undergraduate data science education in developing the degrees. UNC-Chapel Hill has also fostered collaborations with peer institutions, including NC State University and UNC Charlotte. These institutions are members of the National Consortium for Data Science (NCDS), the South Big Data Hub (SBDH), and Academic Data Science Alliance (ADSA), which foster regular interuniversity communication. For example, NCDS created an education working group dedicated to exploring opportunities between members, such as joint career fairs, curriculum development, and speaker series.

#### III. Summary of Review Processes

1. Campus Review Process and Feedback. The BA in Data Science Request for Preliminary Authorization (RPA) and the Request to Establish (RTE) were reviewed and approved by the College of Arts and Science's Academic Program Development Committee, dean, and the Administrative Board before submission to UNC-Chapel Hill's new degree review committee. The proposal was the reviewed and approved by the UNC-Chapel Hill's new degree review committee, chancellor, provost, and chief financial officer, and the proposal was then submitted via the PREP system to the UNC System vice president for academic program, faculty, and research for review and approval by the UNC System office.

2. UNC System Office Review Process and Feedback. Throughout the review process, UNC-Chapel Hill provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

## IV. Recommendation

Staff recommends that the Board of Governors approve the University of North Carolina at Chapel Hill's request to establish the Bachelor of Arts (BA) in Data Science (CIP 30.7001) effective fall 2024.

## Request for Authorization to <u>Establish</u> BS in Data Science CIP 30.7001 University of North Carolina at Chapel Hill

### I. Program Highlights

- The University of North Carolina at Chapel Hill proposes the establishment of a Bachelor of Science (BS) in Data Science.
- The BS in Data Science aligns with UNC-Chapel Hill's core mission of education and research in service to the state, nation, and world. The degree also aligns with the University's strategic plan goals of "Discover: Pursue discovery through creative collaboration" and "Enable Career Development." It also aligns with the System Office's strategic plan goal of "Increase STEM and Health Sciences Credentials by 2027."
- UNC-Chapel Hill seeks to answer a demand for a workforce equipped to manage, analyze, and interpret data to yield actionable insights. The ~63-credit hour BS in Data Science offers development in six competencies: mathematical and statistics foundations, computational thinking, multivariate thinking and optimization, machine learning/AI, ethics, and communication. The degree will also offer the opportunity to pursue a discipline-specific concentration.
- Graduates can expect a strong job market with ample opportunities. The U.S. Bureau of Labor Statistics estimates a 36 percent growth in the data science profession from 2021 to 2031 as compared to the five percent growth rate for all occupations; there are 13,500 openings in data science annually; and \$100,910 is the median annual pay for a data scientist with a bachelor's degree. Expected enrollment by year five for the BS in Data Science is projected to be 200 students (juniors and seniors).
- In comparison to the BA, this degree will give students the additional ability to develop new algorithms for analytics, machine learning, and AI. Thus, their skillsets will take them deeper into tech fields where BA students may not be able to compete as well.
- Projected enrollment at year five is 200 students.

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

1. Relation to Campus Distinctiveness and Mission. Both the School of Data Science and Society (SDSS) and the BS in Data Science align with the university's mission "to serve as a center for research, scholarship, and creativity." The degree will offer students the opportunity to engage in learning and research founded on SDSS's commitment to pan-campus collaboration and advancement of the public good. The SDSS-administered BS purposefully combines the delivery of technical skills with hands-on application to develop students' capacities to lead "change to improve society and to help solve the world's greatest problems" and to "enhance the quality of life for all people in the State." The UNC Chapel Hill Strategic Plan and FY24 budget priorities name "Discover: Pursue discovery through creative collaboration" and "Enable Career Development: Support student career preparation, staff professional development, and faculty career paths" as goals. The launch of SDSS and its degree program are specifically named as strategies toward these institutional goals. The establishment of the BS also aligns with the UNC System Office strategic plan, "Higher Expectations." The BS in Data Science will advance its strategic plan goal to "Increase STEM and Health Sciences Credentials by 2027."

- 2. Student Demand. Current data on UNC-Chapel Hill's data science minor suggests that the major will be in high demand. Enrollment in the minor has increased from 597 students in spring 2022 to 1,097 in spring 2023 (Infoporte, 2023). Further, data provided by the UNC-Chapel Hill registrar in July 2023 show that related majors (computer science, mathematics, statistics, and biostatistics) maintain high and consistent enrollments. In the absence of an official degree in data science, students have constructed a version of the degree by double majoring in these disciplines. It is anticipated that a portion of these majors, as well as students pursuing the minor in data science, will shift to data science either as single or double major. Conservative estimates for students pursuing the BS in Data Science as a single major and double major in the first year is 75-100. By year five, SDSS estimates a cumulative enrollment of 150-200 students (juniors and seniors).
- 3. Employment Opportunities. The data economy has generated a demand for individuals trained in ethical data science analysis who can also effectively communicate findings. Harvard Business Review noted that advancements (e.g., predictive modeling like AI) are pushing organizations to build larger teams of data scientists with distinct roles, such as data engineers and AI specialists (Davenport & Patil, 2022). Multiple sectors view data science as an indispensable skillset and proven return on investment, making it one of the most promising professions according to the U.S. Bureau of Labor Statistics (US BLS, 2022). The BLS projects the profession to grow 36 percent from 2021 to 2031 as compared to the five percent growth rate for all occupations (ibid). Glassdoor, a recruitment company combining multiple employment databases, ranks data scientist jobs as the third best profession with more than 6,500 openings in 2022. The demand is paralleled at the international level as the World Economic Forum's Future of Jobs Report 2023 listed big-data analytics and AI as the number one emerging role in the world labor market. The local job market also offers opportunities as the arrivals of Apple and Google have solidified the state as a major hub in the data economy. A search in June 2023 of the North Carolina Department of Commerce's NCWorks system using the term "data science" identified 197 jobs posted within that month. A June 2023 search of LinkedIn Jobs using keywords "data science" identified 215,946 entries. When restricted to North Carolina, LinkedIn Jobs identified 7,862 data science jobs. A BS in Data Science will position student for these high-paying occupations that offer career opportunity, advancement, and ability to work remotely in any county in the state.
- 4. Impact on Access and Affordability. The BS in Data Science develops technical capacities and professional capacities that position students to benefit from a strong job market. Graduates of the BS in Data Science will have a versatile mix of knowledge, technical skills, and communication capabilities that employers in multiple sectors are seeking. The careers available for data science graduates have outcomes and projected growth well above the national average. The U.S. Bureau of Labor Statistics estimated a 36 percent growth in the data science profession from 2021 to 2031 as compared to the five percent growth rate for all occupations; 13,500 openings in data science annually; and \$100,910 median annual pay for a data scientist with a bachelor's degree.
- 5. UNC-Chapel Hill IS NOT requesting any program-specific fees or tuition differential for this program.

Category	Resident	Nonresident
Tuition	7,019	37,360
Tuition Differential		

Full-Time 2023-2024 Undergraduate Tuition and Fees per Year (In Dollars)

Mandatory Fees (Athletics,	1,733.46	1,733.46
Student Activities, Health		
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		
Special Fees		

- 6. Expected Quality (credit hours, concentrations, etc.). The ~63-credit hour BS in Data Science will fulfill a growing need within and beyond the state by offering a curriculum that draws on existing programs, faculty expertise, and data science-related courses. The degree will offer students high-level development in six competencies: mathematical and statistics foundations, computational thinking, multivariate thinking and optimization, machine learning/AI, ethics, and communication. The degree will also offer students the opportunity to pursue a discipline-specific concentration to apply core competencies through interdisciplinary learning. SDSS will encourage and support students to pursue high-impact learning experiences through research and internships.
- 7. Faculty Quality and Number. The BS in Data Science will use existing courses and faculty within the College of Arts and Sciences (CAS) as well as newly hired faculty in SDSS. In support of the BS, SDSS will develop and administer three new courses. Seat demand for these courses is expected to be high. To support demand for the major, SDSS and CAS will hire 15 joint faculty whereas SDSS will hire 15 fully appointed faculty members in the next three fiscal years. In FY24, SDSS hired five new faculty members with full appointments in the school and an additional 10 joint and secondary appointments with the CAS and other professional schools.
- 8. Relevant Lower-level and Cognate Programs. The university is also developing a BA in Data Science to be housed within CAS. This major, concurrently submitted for approval, is the most similar degree at UNC-Chapel Hill to the BS in Data Science. Each degree serves different student needs. The BS provides more training in in-depth quantitative methods, programming, and analytics whereas the BA emphasizes application. Both degrees offer students the opportunity to pursue a concentration, and these offerings will be developed with units across campus. The BS is an interdisciplinary degree whose courses draw from existing departments, including mathematics, statistics and operations research, and computer science. In addition to providing courses for the BS, each of these units offers their own degrees. The BS in Data Science combines competencies from these fields to prepare students with industry-specific skillsets for a growing field of study.
- **9.** Availability of Campus Resources. No additional library holdings are needed to support the instructional and research needs of the program. Existing courses for the major will continue to rely on current facilities. The UNC-Chapel Hill provost granted access to ITS Manning, an approximately 55,000-square-foot building with five floors, for SDSS use over time as the school grows.
- **10. Existing Programs.** One institution within the UNC System provides a BS in Data Science: University of North Carolina at Charlotte's residential BS in Data Science.
- **11.** Potential for Unnecessary Duplication/program uniqueness from those listed above. UNC Charlotte is the only other UNC System institution that offers an undergraduate degree in "data science." Its curriculum delivers practitioner-focused competencies in support of entry level

positions in the workforce. The UNC-Chapel Hill BS in Data Science delivers more in-depth coursework on quantitative methods, modeling, and analytics, enabling students to secure employment in positions that are more technically demanding or gain admission to an advanced graduate degree program. Another distinct feature of the BS is the ability for students to specialize in a domain concentration to apply data science concepts while deepening knowledge in a specific field. UNC-Chapel Hill conducts over \$1.2 billion of sponsored research annually and is home to top-ranked professional schools. Students will have access to research and educational experiences in these schools and departments facilitated by SDSS's commitment to joint appointments and interdisciplinary research.

12. Joint or collaborative programs. The university established a pan-campus steering committee for data science in the fall of 2019. The committee had direct discussions with University of Virginia and University of California, Berkeley, and it also carefully reviewed the National Academy of Sciences (NAS) report on undergraduate data science education. UNC-Chapel Hill has also fostered collaborations with peer institutions, including NC State University and UNC Charlotte. These institutions are members of several organizations, including National Consortium for Data Science (NCDS), the South Big Data Hub (SBDH), and Academic Data Science Alliance (ADSA), which fosters regular interuniversity communication. For example, NCDS created an education working group dedicated to exploring opportunities between members, such as joint career fairs, curriculum development, and speaker series.

#### III. Summary of Review Processes

- 1. **Campus Review Process and Feedback.** The BS in Data Science Request for Preliminary Authorization (RPA) and the Request to Establish (RTE) were reviewed and approved by the College of Arts and Science's Academic Program Development Committee, dean, and the Administrative Board before submission to UNC-Chapel Hill's new degree review committee. The proposal was then reviewed and approved by the UNC-Chapel Hill's new degree review committee, chancellor, provost, and chief financial officer.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, UNC-Chapel Hill provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approve the University of North Carolina at Chapel Hill's request to establish the Bachelor of Science (BS) in Data Science (CIP 30.7001) effective fall 2024.

## Request for Authorization to <u>Establish</u> Bachelor of Science in Public Health (BSPH) in Community and Global Public Health CIP 51.2207 University of North Carolina at Chapel Hill

## I. Program Highlights

- The University of North Carolina at Chapel Hill, Gillings School of Global Public Health (GSPH), Department of Health Behavior (HB) proposes the establishment of a Bachelor of Science in Public Health (BSPH) in Community and Global Public Health.
- The program's mission is to prepare students to work with local and global communities to identify, assess, and address health problems and achieve health equity. The proposed BSPH degree will provide students with the necessary skills to address the current public health workforce crisis in North Carolina and beyond and serve communities effectively.
- The proposed program aligns with the mission of UNC-Chapel Hill by ensuring students acquire the knowledge and skills needed to collaboratively address public health issues in North Carolina and with global partners. The department has a strong record of local and global community engagement that will be extended to undergraduate training.
- Public health challenges that threaten public safety, economic growth, and security, including climate change, water crises, the opioid epidemic, and the coronavirus pandemic have sparked students' interest in understanding the systems and behaviors that contribute to these challenges. The proposed program will give students skills to improve health behaviors (e.g., vaccination, illicit drug use) and develop structural interventions in partnership with the local and global communities where people live, learn, work, and play.
- Upon graduation, students will be prepared for advanced degree programs or entry-level positions in community health and health education. A *Lightcast* analysis of public health education and promotion bachelor's programs in the state found that new job postings in these fields outnumbered the number of new graduates by 10-to-1 in 2022, with 11 percent job growth in North Carolina projected by 2027, two percentage points higher than the national average. The GSPH is ranked the number one *public* School of Public Health in the country, and 98.6 percent of recent BSPH graduates are either employed or continuing their education. The GSPH is therefore well positioned to expand its current undergraduate degree offerings (in biostatistics, nutrition, environmental health sciences, and health policy and management) to meet a growing need for specialists in community and global public health.
- By the end of year five, 80 students would be enrolled as juniors and seniors in the program.

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

1. Relation to Campus Distinctiveness and Mission. The proposed BSPH supports UNC-Chapel Hill's Strategic Plan, <u>Carolina Next: Innovations for Public Good</u>. Consistent with <u>Strategic Initiative 2.2</u>, "Facilitate learning that is experiential and collaborative, develops individual strengths, and encourages the understanding, use and application of data," the proposed curriculum emphasizes team-based and experiential education, including a required internship to prepare for the job market. The internship will leverage more than 364 community partners of department faculty built over 80 years of community engaged work, also meeting <u>Strategic Initiative 6.1</u>, "Engage with communities including grassroots organizations and local governments to solve problems and improve lives." Finally, in support of <u>Strategic Initiative 7.1</u>, "Strengthen global partnerships

and bring the world to Carolina with enhanced on-campus global programming," students will work with department faculty with partnerships in communities in Cuba, Dominican Republic, Guatemala, Malawi, Mexico, South Africa, Tanzania, and Vietnam.

- 2. Student Demand. Nationally, the number of undergraduate public health degrees awarded doubled within the last decade. Similarly, in North Carolina, between 2010 and 2018, there was a 95 percent increase in the number of graduates at the 14 institutions that offered public health undergraduate degrees. At GSPH, there was a 37 percent increase in the number of applications received for the current BSPH programs between 2014 and 2021. Given limited instructional capacity in the four departments that administer those programs, GSPH was only able to enroll 160 of 223 applicants in 2021, for an unmet need of 63 students that year. In addition, there is high interest in assured enrollment for the current BSPH programs, with more than 10,428 of the 57,000 total first-year applications indicating interest in at least one GSPH assured enrollment program. The proposed program would add a fifth department administering undergraduate public health degrees, and another public health focus area, increasing the capacity of GSPH to meet strong and growing student demand for undergraduate public health training. In February 2020, two surveys (400 students in a public health topics course and 200 current BSPH students) were administered to assess interests in the proposed program. Of the total 260 responses across the two surveys, 64 percent were very interested with 29 percent somewhat interested, suggesting at least 166 students with potential interest in the major.
- 3. Employment Opportunities for Graduates. Graduates of the proposed program will likely seek employment as community health workers and health education specialists. A 2023 Lightcast report focused on undergraduate public health education and promotion programs that train students for similar careers identified 536 graduates of such programs in North Carolina in 2022, but 5,578 unique job postings, suggesting there are currently about 10 jobs posted for which each new graduate in this field in the state who has the requisite credential. According to the N.C. Department of Health and Human Services, 60 percent of the public health workforce in North Carolina is over the age of 45, and as they retire, newly trained public health professionals will be needed. Many of these positions are found in local government, with one study referring to the lack of North Carolina public health care government workers as "in crisis." Graduates of our undergraduate program may be particularly well suited to work in state or local public health departments, and some research forecasts critical shortages in those organizations: (1) The current public health workforce is under-trained, with only 14 percent of health department employees having formal public health training. This comes at a time when public health problems are getting more complex, and the workforce needs people skilled in areas like evidence-based decision-making, strategic planning, and systems thinking, (Leider 2015, Krasna & Fried, 2021); (2) A national study in *Health Affairs* predicts that more than 50 percent of current state and local public health department employees will have left their jobs or retired between 2021 and 2025, in part due to stress and burnout from the pandemic, (Leider et al. 2023). An analysis of public health job postings across the country identified the following skills, all of which are focuses of this BSPH, as highly desirable: oral and written communication, cultural competency, and program management. The most prevalent job titles in the sample were community health educator, community health worker, and prevention specialist, all of which are positions for which our students would be eligible upon graduation. More than 78 percent of the job postings reviewed required a bachelor's degree and relatively limited experience (less than five percent required four or more years of experience), (Kedia et al. 2023).

4. Impact on Access and Affordability. According to an analysis from the GSPH finance office, in FY2020, out of the 260 students enrolled across the four current BSPH programs at GSPH, 28 students acquired loans, with an average annual loan amount of \$8,740. Based on these figures, approximately 10 percent of all BSPH students would accrue loans; those that do would accrue an average total loan amount of approximately \$34,960. Students averaging \$34,960 in debt would remain below this threshold if they earned \$41,937/year or more over eight years following graduation. The Provost Office's Digital and Lifelong Learning completed a preliminary market assessment based on industry economic modeling data and the Classification of Instructional Programs (CIP) to Standard Occupation Classification (SOC) crosswalk from the Bureau of Labor Statistics and National Center for Education Statistics, and identified three sample occupations graduates of the proposed program might seek: health education specialist, research assistant, and community and social service specialist. Two of these meet the identified salary threshold, with nationwide median annual earnings of \$55,223 for health education specialists and \$43,779 for community and social service specialists.

Category	Resident	Nonresident
Tuition	7,019	37,360
Tuition Differential		
Mandatory Fees (Athletics, Student Activities,	1,733.46	1,733.46
Health Services, Educational & Technology,		
Campus Security, Debt Service, ASG)		
Special Fees		

**5.** UNC-Chapel Hill is not requesting any BSPH program-specific fees or tuition differentials. Full-Time 2023-2024 Undergraduate Tuition and Fees per Year (In Dollars)

- 6. Expected Quality. Students must complete public health core coursework (13 credit hours); departmental coursework, including the experiential practice courses (17 credit hours); and additional approved public health courses and electives (12 credit hours), for 42 total hours in the major. As a culminating experience, students intern with a community partner for 150 hours during the semester (10 hours per week), supplemented with classroom instruction and assignments. Students can opt to complete a two-course independent honors research sequence in their senior year. The Council on Education for Public Health (CEPH) accredits GSPH.
- 7. Faculty Quality and Number. Department faculty are nationally recognized for their engaged work. GSPH has over 70 faculty members working in 60 countries who teach over 30 global health courses. The school recently launched a research hub in Zambia, Africa, and a Health Humanitarian Initiative, both of which provide immersive global health opportunities to students. The 31 faculty in the Health Behavior Department have longstanding research partnerships in communities across the world and are well positioned to teach principles of global health, compare public health systems across the world, and engage undergraduate students in ongoing research and practice initiatives.
- 8. Relevant Lower-level and Cognate Programs. The four other BSPH programs housed in GSPH offer training in other public health fields and will not overlap with the proposed program content. BSPH programs in the GSPH, including this one, are designed to efficiently leverage cross-disciplinary core courses taught by faculty across the GSPH, and then offer training in a specialty area. Students in the other BSPH programs take advanced courses in statistical analysis, health

care systems and policy, nutrition, and environmental science; students in this degree will receive advanced training in collaborative, engaged processes and global health.

- **9.** Availability of Campus Resources (Library, Space, etc.) UNC-Chapel Hill and GSPH currently have the classroom and instructional facilities to support and sustain the proposed program, without requiring new space.
- **10.** Existing Programs (Number, Location, Mode of Delivery). In addition to the four programs at GSPH, seven UNC System institutions house public health bachelor's degree programs: Appalachian State University, East Carolina University, Fayetteville State University, North Carolina Central University, University of North Carolina at Charlotte, University of North Carolina at Greensboro, and University of North Carolina Wilmington. There are four CEPH accredited baccalaureate programs (App State, ECU, UNC Charlotte, and UNC Wilmington) and two public health programs (UNC Charlotte and UNC Greensboro) in the UNC System. Of these, ECU has an accredited BSPH concentration in Community Health, UNC Charlotte has an accredited BSPH program with two separate concentrations: (1) Global Health and (2) Community Health Education.
- 11. Potential for Unnecessary Duplication. No other program in the UNC System offers combined specialized training in <u>both</u> community and global health. By adding global training, this program will prepare students to engage with partners to understand the global context in which public health concerns arise and are addressed. Additionally, the program will be housed in the only CEPH accredited school of public health in the UNC System.
- **12. Feasibility of Collaborative Program**. The department plans to use this new degree as a springboard for partnerships with other UNC System institutions. Faculty in the department have active research partnerships with NC Central University faculty and/or have mentored NCCU students through existing mechanisms. GSPH already has a joint degree with University of North Carolina Asheville; collaborations with other institutions, such as ECU, UNC Greensboro, and UNC Charlotte, through activities like joint seminars to provide shared learning opportunities with undergraduates, will be explored.

#### III. Summary of Review Processes

- 1. **Campus Review Process and Feedback.** The BSPH for Community and Global Public Health Request for Preliminary Authorization (RPA) and the Request to Establish (RTE) were reviewed and approved by the school's Academic Programs Committee, department chairs, and dean before submission to UNC-Chapel Hill's new degree review committee. The proposal was then reviewed and approved by the UNC-Chapel Hill's new degree review committee, chancellor, provost, and chief financial officer.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, UNC Chapel-Hill provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approve the University of North Carolina Chapel Hill's request to establish the Bachelor of Science in Public Health (B.S.) in Community and Global health (CIP 99.9999) effective fall 2024.

## Request for Authorization to <u>Establish</u> Joint Bachelor of Arts (BA) in Global Studies CIP 05.0199 University of North Carolina at Chapel Hill

#### I. Program Highlights

- The University of North Carolina at Chapel Hill proposes the establishment of a Joint BA in Global Studies as an area of study in the university's existing joint degree program (JDP) with the National University of Singapore (NUS).
- The proposed Joint Degree Program in Global Studies builds on the existing joint degrees offered with NUS in the following areas: economics, English literature, geography, history, political science, and biology. Offered by UNC-Chapel Hill's College of Arts and Sciences and NUS's Faculty of Arts and Social Sciences, the joint degree is targeted at students who wish to broaden and internationalize their education by combining studies at UNC-Chapel Hill with studies at NUS. Students in the Joint Degree Program will spend at least two or four regular semesters at the host institution. The Joint Degree Program will permit both institutions to strengthen the selected majors by complementing each other's course offerings, so that students will be able draw upon the academic specialties and offerings of the respective departments. Graduates of the program will be awarded a joint Bachelor of Arts or Bachelor of Science by both institutions.
- The university's mission statement emphasizes that UNC-Chapel Hill has a special responsibility to offer its students a truly international education that provides them with the intellectual skills to operate in an increasingly competitive global environment. The goal of the joint degree is to provide a small number of highly motivated students with an expanded but carefully structured, academically stimulating undergraduate program in global studies, building on the previously approved academic programs in biology, economics, English, history, geography, and political science. These departments at UNC-Chapel Hill and NUS have agreed to adjust their curricula and to modify degree requirements in such a way as to satisfy their respective academic expectations for students pursuing a joint BA. As a result, the program will not only provide students with the same broad liberal arts education characteristic of UNC-Chapel Hill, but also with more specialized and enhanced knowledge of their major field, characteristic of academic programs at NUS. This will require a modest adjustment of existing course distribution requirements at both institutions, leaving the total 120 academic credit hours required to earn a degree. Since 2007, 29 UNC-Chapel Hill students and 50 NUS students have participated across all joint degree majors.

The proposed program builds on efforts to transform UNC-Chapel Hill into a major global university, and the building of close, collaborative, multifaceted partnerships with outstanding universities in carefully selected areas of the world. The joint degree undergraduate program between the College of Arts and Sciences at UNC-Chapel Hill and the Faculty of Arts and Social Sciences at NUS, while modest in its initial scope, will, we anticipate, serve as a model for the establishment of other joint degrees between UNC-Chapel Hill and acclaimed institutions in other parts of the globe. The National University of Singapore is not only acknowledged as one of the finest universities in Asia, but it also currently ranks 19th in the Times Higher Education list of *The World's Top 200 Universities*. NUS recruits an outstanding student body, boasts a faculty of international reputation, and offers an eclectic

range of educational opportunities and curricula to facilitate cooperation and collaboration between our two institutions.

- Students opting for the joint degree will be expected to satisfy a special set of general education
  requirements (consistent with those required at UNC-Chapel Hill and governed by SACS) and
  academic major requirements as agreed upon by the two institutions.
- Projected enrollment by year five is approximately six students.

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

1. Relation to Campus Distinctiveness and Mission. The joint degree between UNC-Chapel Hill and NUS will be a significant step toward realizing the expansion of "Carolina's global presence, research, and teaching." The new degree does this by strengthening the "global citizenship" objective of the College of Arts and Sciences IDEAs in Action curriculum. The university's mission statement emphasizes that UNC-Chapel Hill has a special responsibility to offer its students a truly international education that provides them with the intellectual skills to operate in an increasingly competitive global environment. The goal of the joint degree is to provide a small number of highly motivated students with an expanded but carefully structured, academically stimulating undergraduate program in global studies, building on the previously approved academic programs in biology, economics, English, history, geography, and political science.

The joint degree program is intended to be the foundation of a multilevel relationship between UNC-Chapel Hill and NUS, which includes additional joint faculty course development and team teaching, as well as collaborative research and exchanges.

- 2. Student Demand. The program is open to current and future students interested in global studies at UNC-Chapel Hill. Over the past five-years (2019-2024) an average of 289 undergraduate students have declared global studies as their major. As such, there is a large group of students to which the joint degree program will be of interest, especially those who wish to add an experience abroad to their global studies degree program. The costs of the program will be minimal since it draws from existing and future global studies majors, with no additional faculty or university resources requested or required.
- **3.** Employment opportunities for graduates. Students from UNC-Chapel Hill's Global Studies (BA) degree have pursued successful careers across the public and private sectors, including in governmental and nongovernmental organizations, foreign service, and law to health care, global business, and consulting including job titles such as fundraisers, interpreters and translators, social science research assistants, museum technicians and conservators, anthropologists, archeologists, and historians. Students of the joint degree in global studies pursuing careers in these fields will encounter an almost 11 percent increase in job postings in the region from 2022 to2027, according to *Lightcast* analysis, with a median salary of over \$50,000 or \$26 an hour. This program provides a differentiated value of a cultural immersion of one to two years abroad, which may stand out among competitors that usually offer shorter study abroad experiences (such as summer or semester) or no international opportunities. It also allows the program to leverage the global brand equity of the National University of Singapore, which is highly respected globally and especially in Asia, and has an acceptance rate of only five percent.

4. Impact on Access and Affordability. Students pay regular home university tuition and fees throughout their participation in the program, including the terms they are abroad. Participants are responsible for the costs of accommodation or other fees directly to the host institution. All UNC-Chapel Hill students can utilize their existing financial aid and scholarships as well as scholarships awarded through the Study Abroad Office to help with the cost of their time at NUS.

UNC-Chapel Hill is NOT requesting any program-specific fees or tuition differential for this program.

Category	Resident	Nonresident
Tuition	7,019.00	37,360.00
Tuition Differential		
Mandatory Fees (Athletics,	1,733.46	1,733.46
Student Activities, Health		
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		

Full-Time 2023-2024 Undergraduate Tuition and Fees per Year (In Dollars)

5. Expected Quality. Global studies majors must complete all existing <u>degree requirements</u> of the college. Within the major, Global Studies BA students must take 10 courses. All majors are required to take GLBL 210 as the gateway core course. Of the remaining nine courses, two are core courses representing a variety of disciplinary approaches to international and global issues. The two core courses must not come from the same academic department. The other seven courses comprise the student's concentration, four in their thematic area and three in their geographic area. Of these seven courses, five must be above the survey level (courses numbered 200 and above). No courses fulfilling major requirements may be taken pass/fail.

Additionally, global studies majors must earn credit or demonstrate proficiency for six levels of modern language study. Students may choose six levels of one language or four levels of one language and two of another. The primary language must be relevant to the declared world area concentration.

The overall number of credit hours to successfully complete the global studies major requirements (10 courses plus the additional language study) is typically 50.

In 2022-2023, over 2,000 UNC-Chapel Hill students studied abroad, which ranks UNC as 13th in the United States for total participation. Studying abroad in another country can be a transformative and enriching experience. Students are exposed to diverse cultures and perspectives, differing academic perspectives, options to learn another language, and the opportunity to build a global network, ultimately enhancing their future career prospects. Studying abroad also helps foster independence, promotes personal growth, and encourages adaptability, cross-cultural understanding, and increased global awareness.

6. Faculty Quality and Number. The proposed program draws on existing UNC-Chapel Hill and NUS Global Studies faculty, particularly faculty already teaching in the UNC-Chapel Hill BA and MA in Global Studies degree programs. No new additional faculty will be needed for the proposed program.

- 7. Relevant Lower-level and Cognate Programs. Programs and faculty across the college that teach and research in global studies. Since this is an interdisciplinary program, there is already significant collaboration across faculty and departments.
- 8. Availability of Campus Resources (Library, Space, etc.) Students will have access to all facilities and services on campus as other degree-seeking students. Considering the small numbers of students pursuing the joint degree, the program will have a negligible effect on existing facilities at both institutions and will be adequate for the implementation of the program. No new facilities will need to be created or developed.
- **9. Existing Programs (Number, Location, Mode of Delivery).** Since this is the only joint degree program to be offered in global studies, we could not identify any unnecessary program duplication.
- **10. Potential for Unnecessary Duplication.** The proposed program is the only one of its kind offered at an institution of higher education in North Carolina.
- **11. Feasibility of Collaborative Program.** Since this is the only joint degree program to be offered in global studies, no opportunities for collaboration were identified.

#### III. Summary of Review Processes

- 1. **Campus Review Process and Feedback.** The joint BA in Global Studies was reviewed and approved by the UNC Study Abroad Advisory Board, College of Arts and Science's Academic Program Development Committee, dean, and the Administrative Board before submission to UNC-Chapel Hill's degree review committee. The proposal was then reviewed and approved by the UNC-Chapel Hill's degree review committee, chancellor, provost, and chief financial officer.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, the UNC-Chapel Hill provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approve the University of North Carolina at Chapel Hill's request to establish the Joint Bachelor of Arts (BA) in Global Studies (CIP 05.0199) effective fall 2024.

## Request for Authorization to <u>Establish</u> Doctor of Physical Therapy (DPT) CIP 51.2308 University of North Carolina Wilmington

### I. Program Highlights

- The University of North Carolina Wilmington proposes the establishment of a Doctor of Physical Therapy.
- The program fulfills a significant state need as it increases accessibility to physical therapy services by the state's growing population while increasing accessibility to affordable physical therapy education for appropriately qualified students. The proposed program will successfully prepare students for the physical therapy workforce through the delivery of foundational theoretical knowledge and essential clinical skills.
- UNC Wilmington's mission is to ensure graduates "are prepared to serve the needs of local, state, and global communities." In alignment with this mission and that of the College of Health and Human Services, the proposed program will create student-centered, transformative learning experiences to prepare the next generation of physical therapists to respond to patient and societal needs in North Carolina and beyond, including improving health and quality of life, through the provision of passionate, empathetic, and contemporary interprofessional care.
- Student learning outcomes and competency matrix for the proposed program were derived from an analysis of research exploring national trends, considering societal needs, acknowledging student demands, and with an intentional focus on tangible skill attainment. The proposed program was also designed in consultation with local health care employers and leaders, ensuring the skills and subject matter taught are both contemporary and relevant to the broad population needs of southeastern North Carolina and beyond. This competency-based curriculum aligns with the Commission on Accreditation in Physical Therapy Education's (CAPTE) current accreditation standards and will be aligned with the newly approved 2024 standards.
- According to CAPTE accreditation standards, graduates of this program must maintain a two-year National Physical Therapy Examination (NPTE) pass rate of at least 85 percent and a two-year employment rate of at least 90 percent. Although not a CAPTE requirement, a minimum 25 percent of UNCW graduates will have submitted a scholarly abstract for peer review to a local, state, or national conference. The Bureau of Labor Statistics estimates the United States will need an additional 37,100 physical therapists by 2032, creating a strong demand for graduates of the proposed program.
- Projected enrollment by year five is 120 full-time on-campus students.

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

 Relation to Campus Distinctiveness and Mission. The proposed program will become the fifth in the UNC System and the first new doctor of physical therapy program in the UNC System since 1998, and, with its rural focus and integrated health equity plan, will directly address workforce deficits in southeastern North Carolina and beyond. Graduates will fulfill UNC System's mission "to discover, create, transmit, and apply knowledge to address the needs of individuals and society." These professionals apply specialized knowledge and clinical skills to address the health care needs of a growing North Carolina population, particularly the state's rapidly growing older adult population. These demographic shifts acutely influence health care in the communities served by UNCW in southeastern North Carolina and its predominantly rural counties.

- 2. Student Demand. There is significant unmet student demand in the UNC System with 71 percent of qualified North Carolina resident applicants enrolling in private or out-of-state institutions. The four existing UNC System institutions achieved full cohort enrollment 100 percent of the time with an average of 82 percent of those cohorts representing students from North Carolina.
- **3.** Employment Opportunities for Graduates. Graduates from the proposed program will be prepared to take the National Physical Therapy Examination, which is a major component of licensure across all states and U.S territories. Licensed physical therapists are prepared for employment in a variety of health care contexts, including, but not limited to, inpatient, outpatient, geriatric, home health, and other employment contexts. According to the Bureau of Labor Statistics location quotient and labor statistics data, employment of physical therapists in southeastern North Carolina is expected to be very strong and above the national labor market average. Employment rates for graduates of other UNC System schools is nearly 100 percent and, given labor market conditions, the institution projects strong employment outcomes for graduates of this program. Employment rates for graduates of other UNC system schools are nearly 100 percent, and it is anticipated that UNCW graduates will have similar placement outcomes, given labor market indicators and population growth in southeastern North Carolina.
- 4. Impact on Access and Affordability. As growth of programs at public institutions has not kept pace with student demand, more expensive private and for-profit institutions have entered the market space resulting in considerable student debt. The American Physical Therapy Association (APTA) reports average debt for graduates of private university doctor of physical therapy programs to be \$132,827 and public university DPT programs to be \$87,551. The total program cost for UNCW's proposed program is approximately \$29,000, consistent with the cost of other UNC System programs but far below private universities and public universities in other states. The Bureau of Labor Statistics estimates salaries for physical therapists to be \$97,960, while ZipRecruiter reports the average *entry-level* salary for physical therapists is \$93,010. Based on the low cost of the proposed UNCW program and high salary expectations, access and affordability of this program are favorable.
- 5. UNCW <u>is</u> requesting program-specific fees and tuition differential for this program.

UNCW will seek a \$30 per credit hour program fee and a \$75 per credit hour differential tuition through the annual Campus Initiated Tuition Increase (CITI) process.

Category	Resident	Nonresident
Tuition	\$4,979	\$20,155
Tuition Differential	\$1,350	\$1,350
Mandatory Fees (Athletics, Student Activities, Health Services, Educational &	\$2,770.94	\$2,770.94

Full-Time 2023-2024 Graduate Tuition and Fees per Year (In Dollars) based on 18+ credit hour per year full-time course load.

Technology, Campus Security, Debt Service, ASG)*		
Special Fees	\$540	\$540

- 6. Expected Quality. The expected quality of the proposed program is extremely high. The program will seek initial and continuing accreditation from the Commission on Accreditation in Physical Therapy Education (CAPTE), which has compliance standards associated with student success during matriculation and performance on certification exams. As noted above, more than 85 percent of graduates from CAPTE accredited programs pass the National Physical Therapy Examination (NPTE)
- 7. Faculty Quality and Number. UNCW will recruit faculty with expertise specific to physical therapy prior to program launch, as called for in CAPTE standards. UNCW anticipates the need for 8-10 faculty (including the program director and director of clinical education) positions. CAPTE requires each core faculty member, including the program director and clinical education coordinator, to have doctoral preparation, contemporary expertise in assigned teaching areas, and demonstrated effectiveness in teaching and evaluation of student learning. In addition, core faculty who are physical therapists and who are teaching clinical PT content must hold an active, unrestricted PT license in any U.S. jurisdiction and in compliance with their jurisdiction (state/district where the program is located.). Currently, CAPTE requires 50 percent of core faculty to also have terminal academic doctorates.
- 8. Relevant Lower-level and Cognate Programs. UNCW has several undergraduate degree programs that will support the proposed program by delivering required prerequisites and opportunities for clinical experiences and observation hours. Admissions criteria to the proposed program do not specify preparatory undergraduate programs; however, programs in kinesiology/exercise science, biology, public health, and psychology have traditionally served as primary academic conduits to a DPT program. Such programs are found at UNCW and throughout the UNC System.
- **9.** Availability of Campus Resources. UNCW has significant infrastructure in place to support the launch and ongoing enrollment of the proposed program. UNCW opened a new 145,000-square-foot allied health sciences building, Veterans Hall, in 2020, which provides instructional space featuring multiple, state-of-the-art teaching and research laboratories, faculty offices, clinics, and classrooms. Capital equipment costs were included in the construction of the building anticipating the development of the Doctor of Physical Therapy. Despite these physical resources, the proposed program will necessitate renovation of additional existing space to add sufficient clinical practice/instructional areas, storage, and faculty offices. UNCW is exploring several options and is committed to building or renovating an appropriate space.

UNCW's Randall Library is well positioned to support a Doctor of Physical Therapy program. The library currently provides strong support for health-related programs via a dedicated liaison librarian, databases, journals, e-books, streaming videos, and other resources. UNCW also anticipates a major expansion and renovation project to be completed in 2024, which will offer students and faculty additional space and support for research data management, data visualization, 3-D modeling/prototyping, and other research services.

Beyond Veterans Hall, the proposed program will utilize the college's Simulation Learning Center (located in McNeill Hall) to support the clinical elements of its curriculum. Through simulation, students can experience realistic patient environments and a powerful learning experience that promotes cognitive, affective, physical, and social development. UNCW has identified one major equipment need in the form of additional "high/low" tables to support 40 students in labs. The estimated total cost of these tables should be less than \$60,000.

- **10.** Existing Programs. The UNC System has four institutions that offer a Doctor of Physical Therapy program: University of North Carolina at Chapel Hill, East Carolina University, Winston-Salem University, and Western Carolina University. All programs are residential and enroll full cohorts.
- **11.** Potential for Unnecessary Duplication. UNCW consulted several sources including an external vendor, a professional consultant in the academic discipline, and DPT program leadership at UNC-Chapel Hill in developing this proposal. The information garnered from these consultations led to the conclusion that there is a need for a fifth DPT program in the UNC System. Existing programs in the UNC System are at full capacity and turn away more than 50 percent of qualified applicants each year.
- 12. Feasibility of Collaborative Program. UNCW understands that all System institutions must work together to serve North Carolina's students and meet the health care needs of North Carolina's residents. One such opportunity for collaboration is in clinical placements. Identifying suitable clinical placements is a primary concern for clinical programs, and this is an increasing challenge as private and out-of-state programs seek placements in the service regions of UNC programs.

Based on its active role in the new Novant/New Hanover Regional Medical Center/UNC School of Medicine partnership, UNCW contacted UNC-Chapel Hill to discuss potential partnership opportunities including, but not limited to, coordinating clinical placements and potential development of a clinical residency program. Beyond coordinating clinical placements, outstanding opportunities exist to partner with other UNC System institutions to develop academic pathways for qualified undergraduates. UNCW has already developed several pathway agreements in other academic disciplines (e.g., social work, exercise science) at the undergraduate and associate degree levels and is prepared to collaborate with UNC System institutions to build additional pathways for its DPT program.

#### III. Summary of Review Processes

- **1. Campus Review Process and Feedback.** This proposed degree program was reviewed and approved in compliance with institutional faculty and administrative governance requirements. This includes review of budget, physical and human resources, and curriculum.
- **2.** UNC System Office Review Process and Feedback. Throughout the review process, UNCW provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approve the University of North Carolina Wilmington request to establish the Doctor of Physical Therapy (DPT) (CIP 51.2308) effective fall 2028.

### Request for Authorization to <u>Establish</u> Doctor of Nursing Practice (DNP) CIP 51.3818 North Carolina Agricultural and Technical State University

### I. Program Highlights

- North Carolina A&T State University proposes the establishment of a Doctor of Nursing Practice (DNP) in the School of Nursing.
- The Doctor of Nursing Practice degree at N.C. A&T is a terminal practice degree to provide highquality graduate education and training emphasizing an interdisciplinary approach to prepare nurses for advanced clinical practice and leadership focusing on two tracks: (1) Psychiatric-Mental Health Nurse Practitioner (PMHNP), (2) Transformational Nursing Leadership (TNL).
- The program aligns with the university's mission to "prepare students to advance the human condition" by graduating more nurse practitioners to enhance access to health care and diversifying the health care workforce with more minority health care providers to alleviate health inequities.
- The proposed program is unique as it innovatively integrates emerging technology as well as health equity and social justice components in the DNP curriculum to ethically and innovatively address health care challenges, increase minority students' representation in advanced nursing practice and leadership, bridge workforce gaps in PMHNPs, and equip future nursing leaders with diversity, equity, and inclusion (DEI) and emerging health care technology skills (e.g., telehealth, artificial intelligence, sensors, and virtual reality).
- Graduates of the proposed program gain essential knowledge in biophysical, psychosocial analytical, and organizational sciences to deliver culturally appropriate, evidence-based practice through direct patient care or health care system and policy reform. With the national nursing shortage, they will have multiple career options like nurse practitioners, nursing leaders and administrators, and nursing program educators.
- Projected program full-time enrollment at year five is 50 students.

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

## 1. Relation to Campus Distinctiveness and Mission.

In alignment with N.C. A&T's vision and mission of advancing the human condition through transformative teaching and learning, the proposed program is instrumental in producing nursing graduates highly valued by employers for their expertise in DEI and technology. This program will distinguish N.C. A&T as the first Doctor of Nursing Practice program within the University of North Carolina System to integrate innovative health technology and DEI comprehensively. As a historically Black college and university (HBCU), N.C. A&T is dedicated to diversifying the health care workforce, a vital element in achieving health equity. Leveraging its legacy in generating the African American workforce, the proposed DNP program solidifies N.C. A&T's position as a preferred institution in an increasingly diverse academic landscape and contributes to increased representation of underrepresented minorities in advanced nursing practice and leadership.

## 2. Student Demand.

The nationwide and regional demand for Doctor of Nursing Practice programs is surging, evidenced by a 45 percent projected growth in program completions nationwide. Student interest in doctorallevel nursing programs is notably higher than the average across all geographic levels. Notably, program enrollment and completions are experiencing exceptional growth in North Carolina, with a significant 39.5 percent increase in enrollment and an impressive 64.5 percent increase in completions between 2016 and 2020. These statistics demonstrate a consistent and burgeoning interest in doctoral-level nursing programs, as evidenced by a market analysis commissioned by N.C. A&T and conducted by Hanover Research.

## 3. Employment Opportunities for Graduates.

Amidst a global nurse shortage exacerbated by heightened health care demands during the pandemic and an aging population with intricate medical needs, program graduates are positioned to address critical gaps. Factors such as retirements, occupational burnout, and a lack of nursing educators further contribute to this shortage. In 2018, North Carolina ranked 31st among states for nurse-topopulation ratios, with 11.5 nurses for every 1,000 individuals (*Nurse Journal*, 2022). DNP program graduates are poised to fill these gaps through roles such as nurse practitioners, nursing leaders and administrators, and nursing program educators. Specifically, this proposed program will produce advanced practice nurses with specialized expertise in psychiatric/mental health and leadership to meet the needs of North Carolina during a national health care workforce shortage. Hanover Research's commissioned market analysis for N.C. A&T indicates a projected nationwide growth of 44.5 percent and a remarkable 50.7 percent growth within North Carolina for DNP-educated nurses by 2031, further underscoring the demand for Doctor of Nursing Practice graduates in the health care workforce.

## 4. Impact on Access and Affordability.

The proposed program offers a hybrid course delivery module, thus catering to the needs of nursing students who work full time or part time. The proposed program at N.C. A&T is projected to cost \$15,790 (in-state) and \$41,390 (out-of-state) for the 36 credit postmasters DNP option and \$31,580 (in-state) and \$82,780 (out-of-state) annually for the 70 credit BSN-DNP option. According to *Payscale* data, the median annual DNP salary is \$107,000 in 2022. The DNP program at N.C. A&T thus offers a cost-effective path for students to advance their nursing careers and positions them to compete for well-paying jobs. The debt-to-earnings ratio will be .15 for in-state postmasters DNP and .39 for out-of-state postmasters and .30 for in-state BSN-DNP and .77 for out-of-state BSN-DNP.

5. N.C. A&T is requesting program-specific fees and tuition differential for the proposed DNP program.

Category	Resident	Non-Resident
Tuition	\$4,895.00	\$17,695.00
Tuition Differential	\$2,000	\$2,000
Mandatory Fees (Athletics,	\$3,086.31	\$3,086.31
Student Activities, Health		
Services, Educational &		
Technology, Campus		
Security, Debt Service, ASG)		
Special Fees	\$1,000	\$1,000

Full-Time 2023-2024 Graduate Tuition and Fees per Year (In Dollars)-

## 6. Expected Quality.

The proposed program is designed to align with national standards and exceed expectations within the domain of nursing education, with a particular focus on the PMHNP and TNL tracks. The comprehensive integration of health technology and DEI into the curriculum allows N.C. A&T to build its program through an interdisciplinary approach, drawing upon the strength of disciplines such as engineering, psychology, sociology, and others. Additionally, it enables the institution to attract and recruit accomplished nursing instructors and researchers with expertise in the respective tracks and concentrations. These faculty members will provide students with specialized knowledge and mentorship in evidence-based nursing practice, leadership, quality improvement projects, and research methods, following best practices outlined by organizations such as the American Association of Colleges of Nursing (AACN), Accreditation Commission for Education in Nursing (ACEN), American Nurses Credentialing Center (ANCC), and National Organization of Nurse Practitioner Faculties (NONPF). This will empower students to gain simulation and patient care experience, conduct quality improvement projects, and collaborate with other UNC System students and faculty.

#### 7. Faculty Quality and Number.

Ten new faculty positions that include tenure track, clinical track, and part-time faculty with expertise in the specializations of mental health/psychiatry and nursing leadership have been requested for this program to support the delivery of coursework, supervision, recruitment, retention, and advisement of students. Recruits possess experience in classroom instruction, online instruction, simulation, clinical practicum, program development, quality improvement project committee membership, grant writing and research, publications, and presentations. Additionally, 10 current School of Nursing faculty will be partially involved in the teaching and mentoring responsibilities for the proposed DNP program with their expertise in nursing theory, practice, leadership, research methodology, health technology, and DEI.

#### 8. Relevant Lower-level and Cognate Programs.

The proposed program is designed to welcome students who have completed a Master of Science or postgraduate degree in nursing for TNL and a bachelor's degree in nursing for PMHNP. As the fifth largest major at N.C.A&T, the undergraduate program has set up simulation labs and clinical sites that will also serve the DNP program. Nursing graduates will also serve as a consistent pipeline of well-prepared students.

#### 9. Availability of Campus Resources (library, space, etc.)

The N.C. A&T College of Health and Human Sciences, the School of Nursing (SON), and F.D. Bluford Library are well equipped to support the educational, research, academic, and administrative needs of the institution and support the proposed program, with the ability to grow to meet future capacity needs. F.D. Bluford Library provides the SON with appropriate library and learning information resources for nursing and the proposed areas of specialization. The collection is available seven days a week through the library's website. Currently, there are approximately 57 databases for nursing students. DNP students will have access to Union Square Campus for simulation and clinical labs, study rooms, and student lounges.

#### 10. Existing Programs (Number, Location, Mode of Delivery).

Seven institutions (East Carolina University, University of North Carolina at Chapel Hill, University of North Carolina at Charlotte, University of North Carolina at Greensboro, University of North Carolina Wilmington, Western Carolina University, and Winston-Salem State University) operate DNP programs. Between 2019 to 2022, 3,871 applicants applied to these institutions, but only half of them (1,974) were accepted, leaving a gap in program demand. New DNP cohorts at N.C. A&T will have 20 students.

#### 11. Potential for Unnecessary Duplication.

Two programs (UNC-Chapel Hill and UNC Wilmington) offer psychiatric/mental health nursing and four programs (ECU, UNC-Chapel Hill, UNCW, and Winston-Salem State) offer nursing leadership,

which leaves a gap in regions west. The proposed program will not lead to unnecessary duplication due to the demand and its distinctive areas of concentration.

## **12.** Feasibility of Collaborative Program.

Implementation of the DNP program will leverage collaborative opportunities within the UNC System to optimize the utilization of resources. N.C. A&T currently shares clinical training resources at the Union Square Campus with UNC Greensboro. This collaboration provides a cost-effective approach to delivering world-class education to participating institutions. N.C. A&T also has a history of collaborating with UNC-Chapel Hill. The UNC-Chapel Hill Department of Medicine has several clinics in the greater Greensboro area. We will collaborate with them to expand preceptorships for trainees in the DNP program.

A requirement of the proposed DNP program is a quality improvement (QI) project. This provides opportunities for collaboration in scholarship with UNC System institutions, especially UNC-Chapel Hill, because of existing partnerships. This will be achieved through various programs, including the North Carolina Diabetes Research Center (NCDRC), the North Carolina Translational and Clinical Sciences Institute (NC TraCS), and the North Carolina Nutrition and Obesity Research Center (NORC). We will seek to expand collaborations to include other UNC-Chapel Hill research centers such as the UNC Kidney Center, the Center for Aging and Health, the Center for Maternal and Infant Health, the Center for Gastrointestinal Biology and Disease, the Center for Women's Health Research, Institute for Global Health and Infectious Diseases, and UNC Lineberger Comprehensive Cancer Center.

## **13. Other Considerations.**

As a part of the Doctor of Nursing program training, students must also complete required clinical hours through rotations at clinical sites. As we consider clinical placement sites for the DNP students, it will be necessary to collaborate with multiple health care providers around the availability of training sites. Cone Health, Novant Health, and Atrium Health Wake Forest Baptist in Guilford, Rockingham, and Alamance counties have agreed to collaborate with N.C. A&T to serve as the clinical sites and provide preceptors. N.C. A&T has a long history of collaborations with UNC-Chapel Hill. The UNC Medical School has clinics in the suburbs of Greensboro (e.g., Burlington). Opportunities for clinical rotations with these UNC-Chapel Hill clinics will be sought.

#### III. Summary of Review Processes

## 1. Campus Review Process and Feedback.

The proposal was reviewed by N.C. A&T faculty senate, the graduate council, the graduate school, and administrators including the director of the School of Nursing, associate dean of nursing, the dean of the College of Health and Human Sciences, and the Office of Strategic Planning and Institutional Effectiveness, UNC System Graduate Council of Deans, external program reviewers, provost, and chancellor.

#### 2. UNC System Office Review Process and Feedback

Throughout the review process, N.C. A&T provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approve the North Carolina A&T State University request to establish the Doctor of Nursing Practice (DNP) (CIP 51.3818) effective fall 2024.

## Request for Authorization to <u>Establish</u> Doctor of Philosophy (Ph.D.) in Agricultural Education and Human Sciences CIP 01.0801 North Carolina State University

#### I. Program Highlights

- North Carolina State University proposes the establishment of a Doctor of Philosophy in Agricultural Education and Human Sciences.
- The proposed program aims to transition the current Ed.D. program in Agricultural and Extension Education (AEE) to a Ph.D. program in Agricultural Education and Human Sciences (AEHS); the Ph.D. program will replace the existing Ed.D. The new Ph.D. program will integrate agricultural education, extension education, family and community sciences, and agricultural leadership development.
- The proposed program will create leaders, scholars, and teachers who will contribute to the development of human capital and food and agricultural systems in North Carolina and the world. In the Wolfpack 2030: Powering the Extraordinary strategic plan, NC State aims to "ensure preeminence in research, scholarship, innovation and collaboration". The proposed program will fully support these strategic goals. The proposal also advances the three UNC System strategic plan goals including increasing access, increasing graduate students' success, and increasing the System's contribution to the state's critical workforces.
- The proposed program will train the next generation of professionals in agriculture and human sciences to find solutions to grand challenges. Students will contribute to the development of human capital and food and agricultural systems in North Carolina and the world. The new program will intensify the intersections of agricultural education, extension education, foods and nutrition, family and community sciences, and leadership.
- The proposed program projects a five-year enrollment of 15 full-time students and 15 part-time students.

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

- 1. Relation to Campus Distinctiveness and Mission. The proposed program will build on existing collaboration between two departments that recently merged to create the Department of Agricultural and Human Sciences. The proposed program leverages the many disciplines represented in the department, fostering enhanced interdisciplinary education to embrace the human dimensions of agriculture as a common core of study. The proposed program will offer students one of four concentrations: (i) Agricultural Leadership Development, (ii) Agricultural Education, (iii) Extension Education, and (iv) Family and Community Sciences, around which students will center their work. Students across each of the specialization areas will work closely with their advisers and committees, and receive targeted guidance and support to hone their effectiveness to teach, lead, and serve in higher education, extension, government, and industry.
- 2. Student Demand. Nationally, there is a shortage of professionals with doctorates in Agricultural and Extension Education, with only 12 programs offering such degrees. NC State ranks fourth in enrollment among these institutions and is one of two doctoral-granting institutions for Agricultural and Extension Education in the state. Surveys of current NC State master's and doctoral students in the Department of Agricultural and Human Sciences, including current Ed.D.

students in AEE, as well as alumni from the College of Agriculture and Life Sciences indicate a high student demand for the program and its restructuring will attract a broader range of students. The program's availability—with many courses offered via distance education—will meet the need in North Carolina and beyond.

- **3.** Employment Opportunities for Graduates. Given the strong practical and theoretical focus of this program, students with an AEHS Ph.D. will be suited for a variety of academic and leadership positions at the intersections of agricultural and human sciences. In North Carolina, there is a need for administrators and specialists who hold doctoral degrees within the Cooperative Extension Service. Graduates will be trained professionals in agriculture and human sciences; they will be ready to take leadership roles in higher education, extension, government, and industry and contribute to developing human capital and food and agricultural systems in North Carolina and globally.
- 4. Impact on Access and Affordability. The program will provide opportunities for students to pursue a doctoral degree in Agricultural Education and Human Sciences, addressing the shortage of professionals in this field nationally. Analysis of student debt levels shows that NC State students in similar programs borrowed significantly less than the national average. The program aims to support students through graduate assistantships, research assistantships, tuition reimbursement, and funding from grants and contracts. The proposed area of study represents a new area of study at NC State and is expected to attract a previously untapped applicant pool to the university. Tuition and fees rates would be as follows:

Category	Resident	Non-Resident
Tuition	\$9 <i>,</i> 459	\$29,433
Tuition Differential	N/A	N/A
Mandatory Fees (Athletics, Student Activities, Health Services, Educational & Technology, Campus Security, Debt Service, ASG)	\$2,361.25	\$2,361.25
Special Fees	N/A	N/A

Full-Time 2023-24 Graduate Tuition and Fees per Year (In Dollars)

5. Expected Quality. This doctoral program builds on a strong tradition of extension-based research and teaching. Students will participate in translational and transformative research with a broad community reach. Faculty have expertise in multidisciplinary fields including human development, family and community sciences, financial management, local food systems, leadership, food safety, nutrition, volunteer resource management, agricultural education, teacher preparation, curriculum development, evaluation, housing, energy management, disaster preparedness, community-based health, chronic disease prevention, occupational safety and health, positive youth development, and extension education. AHS faculty are in a unique position to bring together agriculture, family well-being, and community sectors in a training program that investigates the human dimensions of agriculture. In addition, many of AHS graduate courses are available to students in 19 universities as part of the Great Plains Interactive Distance Education Alliance (IDEA). Great Plains IDEA is a partnership of public universities providing quality online educational opportunities in two areas, human sciences and agriculture. This connection is important for addressing student demand in North Carolina and beyond.

- 6. Faculty Quality and Number. The department has a strong research and scholarly infrastructure in place to support the proposed program, as it will replace the current Ed.D. program. With 21 faculty members holding terminal degrees and graduate faculty status, additional adjunct faculty, and a diverse range of professionals, the department encompasses expertise in various agricultural education and human sciences disciplines. Program faculty have an excellent track record in research and extension and in securing external funding in support of these activities. Overall, the department has the necessary faculty expertise, resources, and interdisciplinary focus to support the proposed Ph.D. program effectively.
- 7. Relevant Lower-level and Cognate Programs. The proposed program is supported by several master's level programs as the students completing these master's programs will be potential candidates for the proposed program. Within the NC State AHS department, this includes the AEHS MR and MS degree programs. Master's programs in other departments of the College of Agriculture and Life Sciences, such as Animal Science, Crop Science, Entomology, Horticulture, Nutrition, Plant Pathology, Poultry Science, and Soil Science, have the potential to support the proposed Ph.D. by sending prospective students who want to prepare for extension education professional careers. Master's programs in the College of Natural Resources, such as Fisheries, Wildlife, and Conservation Biology; Forestry; and Parks, Recreation, and Tourism Management, can also provide prospective students interested in the human dimensions of agriculture for the proposed program.
- 8. Availability of Campus Resources (library, space, etc.) Library resources (academic journals, databases, e-books, and advanced software) needed for this program are available to current engineering and education majors at NC State. Although enrollment is expected to increase, the effect on classroom facilities will be minimal, given the capacity of existing spaces and the additional resources available at the D.H. Hill and Hunt Libraries. The program does not require additional computer labs, as no lab sessions are part of the courses. Statistical analysis tools can be accessed via NC State site licenses. The management of online courses attached to the program will fall under the purview of NC State's Digital Education and Learning Technology Applications (DELTA) and Engineering Online services, which are well equipped to handle the corresponding load.
- **9.** Existing Programs (Number, Location, Mode of Delivery). North Carolina Agricultural and Technical State University offers a Ph.D. in Agriculture and Environmental Sciences with a concentration in Agricultural and Extension Education (CIP code 01.0000). The University of North Carolina at Greensboro offers a Ph.D. in Human Development and Family Studies (CIP code 19.0701). The NC State Ph.D. program in Agricultural Education and Human Sciences will be distinct from all other programs offered in the UNC System and the nation. In fact, the current NC State Ed.D. is the only doctoral-level program specific to Agricultural and Extension Education Services (CIP code 01.0801) within the UNC System.
- **10.** Potential for Unnecessary Duplication. No other doctoral-level program in the country that supports students in professional practice, research, and scholarship at the intersection of the human sciences and agricultural and extension education was identified.
- **11. Feasibility of Collaborative Program**. The NC State Department of Agricultural and Human Sciences faculty has a strong history of collaboration with institutions within the UNC System and is dedicated to exploring potential collaborations for the proposed program. One example of

potential collaboration is including faculty from other institutions as external members on doctoral advisory committees.

Faculty in the AHS department already serve on doctoral committees for students in various departments and programs across NC State's campus, including Sociology in the College of Humanities and Social Sciences, Adult and Community College Education and Community College Leadership in the College of Education, Fisheries, Wildlife, and Conservation Biology and Parks, Recreation, and Tourism Management in the College of Natural Resources, and Crop Science, Food Science, Horticulture, Nutrition, and Soil Science in the College of Agriculture and Life Sciences. Program faculty are committed to collaboration and partnership, continuing existing collaborations and fostering new ones with other institutions and departments.

#### 12. Other Considerations. None.

#### III. Summary of Review Processes

#### 1. Campus Review Process and Feedback.

The proposal was reviewed by NC State faculty (department and college committees), the Administrative Board of the Graduate School (ABGS), the Council of Deans, CFO, provost, and chancellor. Approval and support were provided at all levels.

**UNC System Office Review Process and Feedback.** Throughout the review process, NC State University provided relevant information pertaining to program requirements and resources. The institution submitted appropriate documentation and research to support the statements made.

#### IV. Recommendation

Staff recommends that the Board of Governors approve North Carolina State University's request to establish the Doctor of Philosophy (Ph.D.) in Agricultural Education and Human Sciences (CIP 01.0801) effective spring 2024.

### Request for Authorization to <u>Discontinue and/or Consolidate</u> Academic Program Degree Programs

## Elizabeth City State University Bachelor of Science in Chemistry (BS) CIP 40.0501

**Overview**: The Bachelor of Science in Chemistry (40.0501) at Elizabeth City State University will be <u>discontinued</u> effective fall 2024. The request to discontinue delivery of the degree program was approved by the head of the program, appropriate institutional committees, and chief academic officer.

The request to discontinue the Bachelor of Science in Chemistry is due to low enrollment. No staff or students will be affected by the discontinuation (the last student graduated in spring 2023). The two full-time tenured faculty members supporting the program will be affected by the discontinuation. One faculty member will be terminated, while the other will remain to teach general education and STEM-related chemistry courses.

**Recommendation:** UNC System Office staff recommend that the Board of Governors approve the request of Elizabeth City State University to discontinue the delivery of the Bachelor of Science in Chemistry (40.0501) effective fall 2024.

### North Carolina Agricultural and Technical State University Bachelor of Science in Engineering Mathematics (BS) CIP 27.0301

**Overview**: The Bachelor of Science in Engineering Mathematics (27.0301) at North Carolina Agricultural and Technical State University will be <u>discontinued</u> effective fall 2024. The request to permanently discontinue delivery of the degree program was approved by the head of the program, appropriate institutional committees, and chief academic officer.

The Bachelor of Science in Engineering Mathematics has been inactive in the North Carolina Agricultural and Technical State University Information System since 1999. The UNC Academic Program Inventory lists the program as active. This discontinuation action will reconcile the discrepancy. No students, faculty, or staff members will be affected by the discontinuation of the program.

**Recommendation:** UNC System Office staff recommend that the Board of Governors approve the request of North Carolina Agricultural and Technical State University to discontinue the delivery of the Bachelor of Science in Engineering Mathematics (27.0301) effective fall 2024.