Request for Authorization to <u>Establish</u> Bachelor of Science (BS) in Special Education CIP 13.1001 Fayetteville State University

I. Program Highlights

- Fayetteville State University proposes the establishment of a BS in Special Education (General Curriculum K-12).
- The purpose of the program is to prepare graduates for career opportunities in special education with opportunities to work in public, private, and/or charter schools, school districts, and nonprofit organizations. The proposed degree program and its focus on educating students with disabilities supports FSU's mission to advance "knowledge through the integration of teaching, learning, research, and public service." Special Education is currently a minor.
- The proposed program would serve the needs of local school districts and families. A teacher of special education is a multidisciplinarian who examines instruction from different perspectives, understands the implications of disability, and incorporates differentiation in supporting the exceptional child and their family. The proposed degree program would serve and draw students from different geographical regions than other UNC System institutions with comparable programs. The curriculum would feature a reading concentration that recognizes and addresses the implementation of the science of reading. This instruction would be aligned with the science of reading requirement in North Carolina for educator preparation programs and elementary school teachers. The proposed program will enhance teacher candidates' overall ability to differentiate and implement evidence-based, effective instruction, particularly in literacy aligned with the UNC System and North Carolina legislator mandates.
- There are abundant opportunities for employment given the shortage of special education teachers in North Carolina. In recent years (2020-23), there have been 7,359 unique job postings and more than 5,000 teacher vacancies in North Carolina as of February 2023. In the Sandhills region of North Carolina, there were 80 special education teacher vacancies in April 2023 alone, (19 in Harnett County, 25 in Cumberland County, five in Hoke County, 11 in Lee County, and 20 in Moore County). The average salary for a beginning teacher with a BA or a BS degree in North Carolina is \$37,000 or an average of \$24.06 per hour, with some discrepancy in pay based on county/school district.
- The population of students identified as having a disability has grown steadily in recent years, so
 it is imperative the special education teacher workforce grow concurrently to serve these
 students. This proposal responds to the societal need for qualified professionals who are at the
 forefront of addressing the education of exceptional children.
- The chancellor has issued this program a waiver of the prohibition on DEI content based on state teacher licensing board requirements.
- The projected enrollment in year five is 25 on-campus students (20 full-time and five part-time).

II. Academic Program Planning Criteria (UNC Policy 400.1)

1. Relation to Campus Distinctiveness and Mission. The proposed BS in Special Education supports the FSU mission, which states: "FSU strives to meet the educational, career and personal aspirations of its traditional and non-traditional students from rural, military and other diverse

backgrounds so that they are equipped with academic and practical knowledge to serve local, state, national and global communities as enlightened citizens, globally astute leaders and engaged solution creators." The proposed curriculum's focus aligns with the UNC System mission to "discover, create, transmit, and apply knowledge to address the individuals and society," which is addressed through instruction to "impart the skills necessary for individuals to lead responsible, productive, and personally satisfying lives."

2. Student Demand. Other UNC System institutions that currently offer the same special education degree program graduate an average of 25 students annually. FSU's Department of Elementary Education, Middle Grades, Reading, and Special Education (EEMRSE) supported an increasing average of undergraduate special education minors over the past few school years (fall 2021: four, fall 2022: seven, fall 2023: 11). Many students who have completed or are in the process of completing the special education minor have expressed interest in a special education degree program. FSU has not been able to serve these students in a formal capacity outside of offering the special education minor, so the proposed program would work to increase recruitment and retention of prospective and current students while simultaneously seeking to fill job vacancies in the surrounding counties. FSU also supports North Carolina Teaching Fellows, which is offered at eight educator preparation programs in the UNC System, in special education and STEM fields. The creation of an undergraduate degree program would attract students who are eligible for North Carolina Teaching Fellows.

Table 1. Other UNC System Enrolled for CIP 13.1001— Special Education and Teaching, General

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
ECU	85	90	83	89	79	72
ECSU	18	20	20	22	16	7
UNCC	83	103	118	104	75	48
UNCG	71	67	67	77	75	56
UNCP	48	46	39	40	35	28
UNCW	19	22	12	15	7	6
WCU	108	109	93	79	69	51

Table 2. Other UNC System Completions for Bachelor's Degrees, 13.1001— Special Education and Teaching, General

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
ECU	18	19	13	13	23	13
ECSU	0	1	2	2	4	0
UNCC	23	26	31	28	36	23
UNCG	25	25	56	24	27	13
UNCP	4	2	3	4	7	5
UNCW	4	10	6	8	3	2
WCU	17	15	21	12	19	13

Table 3. IPEDS Peer Institutions Completions for Bachelor's Degrees, CIP 13.1001— Special Education and Teaching, General

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23
Alabama State	2	7	5	1	1
University		,	3	•	1
Grambling State	0	0	0	0	0
University	U	U	U	O	b
Norfolk State	0	0	0	0	1
University	0	U	0	U	1
University of					
Arkansas at Pine	0	0	1	2	0
Bluff					
Virginia State	0	0	0	0	1
University		U		U	1

3. Employment Opportunities for Graduates. In recent years (2020-23), there have been 7,359 unique job postings for special education teachers in North Carolina. There were more than 5,000 teacher vacancies in North Carolina as of February 2023. In the Sandhills region of North Carolina as of April 2023, there were 80 special education teacher vacancies (19 in Harnett County, 25 in Cumberland County, five in Hoke County, 11 in Lee County, and 20 in Moore County). The average salary for a beginning teacher with a BA or a BS degree in North Carolina is \$37,000 with some discrepancy in pay based on county/school district.

Table 4. Median Wage for SOC Codes Cross-walked to CIP Code: 13.1001— Special Education and Teaching, General

Degree Level	Educational Level Requirement	SOC Count	Median Wage
Bachelor's	Bachelor's Degree	4	\$49,280

Table 5. Estimated Employment for SOC Codes Cross-walked to CIP Code: 13.1001— Special Education and Teaching, General with a Matching Education Level Requirement

Education Level Requirement	Count of SOC Codes	2021	2030 Estimate	Net Change	Percent Change
Bachelor's	4	6,632	7,003	371	5.6%

4. Impact on Access and Affordability. Student tuition and fee rates are consistent across the FSU campus for undergraduate level programs. The median total debt after graduation from FSU is \$22,987, with a typical monthly loan payment of \$244. The median total debt for four-year comparative institutions ranges from \$19,500 to \$25,000, with an average median of \$22,134. The typical monthly loan payment for comparable institutions ranges from \$207 to \$265 per month (average: \$234). The median student debt for NC Promise schools is higher on average than other UNC System institutions (\$22,829, compared to \$21,652). Most students at FSU are from Cumberland County, identified as an economically distressed Tier I county by the North Carolina Chamber of Commerce. Students with lower incomes may tend to borrow more for their education. The proposed program would not only provide access to higher education at

significantly reduced cost but also provide the necessary training to obtain employment in a critical needs area.

5. Fayetteville State University is not requesting any program-specific fees or tuition differential for this program. Undergraduate tuition and fees for the 2025-26 full-time (12+ credit hour) rates are as follows:

Full-Time On Campus 2025-26 Undergraduate Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	(NC Promise Tuition) 1,000	(NC Promise Tuition) 5,000
Tuition Differential	N/A	N/A
Mandatory Fees (Athletics,	2,644	2,644
Student Activities, Health		
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		
Special Fees	N/A	N/A

- **6. Return on Investment.** Fayetteville State University's average time to degree is 6.3 years. Using the above figures for tuition and fees, in-state student expenditures for tuition and fees equal to \$22,737. The median income for this position five years out from graduation is \$49,280.
- 7. Expected Quality. The proposed degree program would require 120 credit hours. Each candidate will complete an extensive semester-long clinical experience during their final semester. FSU's Clinical Educators must be professionally licensed in the field of licensure sought by the candidate, have a minimum of three years of experience in a teaching role, have been rated, through the educator's most recent formal evaluations, at least at the "proficient" level as part of the North Carolina Teacher Evaluation System, and have met expectations as part of student growth in the field of licensure sought by the candidate.

The accrediting agencies are the Council for the Accreditation of Educator Preparation (CAEP) and the North Carolina Department of Public Instruction (NCDPI). NCDPI is the agency concerned with educator preparation programs in North Carolina. The requirements for initial licensure in special education have been reviewed during program planning, and we plan to apply for NCDPI's licensure endorsement upon program approval. The curriculum of the proposed program is designed to satisfy the designation requirements. CAEP is the agency that accredits postsecondary educator preparation programs. All other degree programs in FSU's Department of Elementary Education, Middle Grades, Reading, and Special Education (EEMRSE) are currently accredited by CAEP, so it is our intention to pursue CAEP accreditation for this proposed program.

8. Faculty Quality and Number. FSU has highly qualified faculty members with terminal degrees in special education to provide instruction. FSU is a partner with the North Carolina State Improvement Project (NCSIP). Among the current special education faculty are state-certified instructors in Reading Research to Classroom Practice and Foundations of Math, which are intensive professional development courses embedded into FSU courses. As an NCSIP partner institution, several accountability measures are in place to ensure high-quality course content,

delivery, and effectiveness. These include faculty observations, candidate data tracking, and licensure exam data.

- 9. Relevant Lower-level and Cognate Programs. The existing lower-level programs include the special education concentration, which includes a series of six courses at the undergraduate level to prepare students for dual licensure in both elementary or middle grades education and special education. This concentration option will continue to operate independently of the proposed degree program. The existing College of Education core courses will continue to support the proposed program by providing candidates with background knowledge and early field experience in special education as well as education in general.
- 10. Availability of Campus Resources (Library, Space, etc.). FSU's Chesnutt Library maintains enough resources and staff to support the proposed program. The library has 226,849 print and 674,011 eBooks, 311 individual journal subscriptions and 56,051 e-journal subscriptions (https://journalfinder.com/fsu/). The library provides electronic access to 388 multidisciplinary and subject specific databases (https://libguides.uncfsu.edu/az.php). These databases provide access to millions of electronic media in the format of eBooks, newspapers, scholarly articles, films, music scores, and audio recordings. The library resources and services are available to all faculty members and enrolled students, onsite or via remote access. Virtually all of Chesnutt Library's electronic resources and services are available 24 hours a day, seven days a week through proxy authentication. Library privileges are made available to all students and faculty members at the beginning of each semester. The library is a depository for federal publications through the U.S. Government Printing Office (20 percent) and State of North Carolina Publication (100 percent). The library has 43,156 item level holdings in government documents.

The existing campus facilities would be adequate in year one of the program's operation. There will be new facilities by years five and 10, which would enhance the program's operation. The proposed degree program will not have any effect on existing technology, information technology, and services currently utilized at FSU. The existing technology, information technology, and services will be adequate in year one of the program's operation. Students also have on campus and remote support from the IT help desk, which they may access at any time via phone or by submitting a ticket for any network, computer, or software issues. As technological advances are made at FSU, we anticipate the standard services would be adequate in years five and 10 of the program's operation.

- 11. Existing Programs (Number, Location, Mode of Delivery). Similar programs are offered in the following UNC System institutions: East Carolina University on campus and online; Elizabeth City State University on campus; University of North Carolina at Charlotte on campus; University of North Carolina at Pembroke on campus; University of North Carolina Wilmington on campus; Western Carolina University on campus.
- 12. Potential for Unnecessary Duplication. The proposed program will fill a much-needed gap in undergraduate degree programs offered in the UNC System. Although other UNC institutions (ECU, ECSU, UNC Charlotte, UNC Greensboro, UNC Pembroke, UNC Wilmington, and Western Carolina) offer a special education (general curriculum) degree program, they serve and draw students from different geographical regions and socioeconomic strata within North Carolina.

The proposed program is unique through the reading concentration, which recognizes and addresses the implementation of the science of reading. The implementation of instruction aligned with the science of reading has recently become a requirement in North Carolina for educator preparation programs and public school elementary teachers (i.e., Language Essentials for Teachers of Reading and Spelling, or LETRS), so the proposed program will enhance teacher candidates' overall ability to differentiate and implement evidence-based, effective instruction, particularly in literacy aligned with the UNC System and North Carolina legislator mandates.

13. Feasibility of Collaborative Program. FSU anticipates building a professional development opportunity for students earning their degree in special education at Sandhills area universities, including Methodist University and UNC Pembroke. The anticipated focus of the professional development workshop would be targeting areas of high need from the students and the PK-12 schools in which they will work. FSU faculty have already met with Fayetteville Technical Community College to begin the planning and transition process between programs.

FSU has garnered collaborative partnerships with local community colleges, in an effort to increase opportunities for students to transfer into the university and obtain a bachelor's degree. Working closely with these community colleges will prove beneficial to provide students with a clear path to a degree beyond the associate's degree they obtain at the community college. FSU's colleges and departments will work closely with the institutions to ensure a smooth transfer process for students.

FSU has developed positive partnerships with the military community in the surrounding area. Students have the option of taking classes at Fort Bragg, on campus, or online.

III. Summary of Review Processes

- 1. Campus Review Process and Feedback. The academic proposal was reviewed and approved by the following: The Department of Elementary Education, Middle Grades, Reading, and Special Education (EEMRSE) Curriculum Committee, Dr. Tanya Hudson (EEMRSE department chair), the College of Education (COE) Academic Affairs Committee (chair, Dr. Theodore Kaniuka), Dr. Chandrika Johnson (dean of COE), the Faculty Senate Academic Affairs Committee (chair, Dr. Sara Brightman), the Faculty Senate (chair, Dr. Zahra Shekarkhar), Dr. Nicole Lucas, SACSCOC liaison, and Dr. Monica Leach, provost and vice chancellor for Academic Affairs.
- **2. UNC System Office Review Process and Feedback.** Throughout the review process, FSU 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 approve Fayetteville State University's request to establish the Bachelor of Science (BS) in Special Education (CIP 13.1001) effective fall 2025.

Request for Authorization to <u>Establish</u> Bachelor of Science (BS) in Aeronautical and Astronautical Engineering CIP 14.0201

North Carolina Agricultural and Technical State University

I. Program Highlights

- North Carolina Agricultural and Technical State University proposes the establishment of a Bachelor of Science (BS) in Aeronautical and Astronautical Engineering.
- The BS in Aeronautical and Astronautical Engineering (AAEN) program is designed to equip students with the knowledge, skills, and experiences needed for successful careers in aerospace engineering and related fields.
- The AAEN program is designed to prepare students to facilitate economic growth in the aeronautical and astronautical industry. The program supports N.C. A&T's strategic plan by promoting transformative engagement, encouraging graduates to participate in cross-disciplinary initiatives that lead to life-changing advancements in social, economic, health, and educational sectors. It also fosters leadership and innovation, shaping solutions-oriented thinkers and doers who contribute to intellectual and creative exchanges with industry and community stakeholders.
- Graduates of the AAEN program will be well equipped for careers in aerospace companies and
 government agencies, and for pursuing advanced degrees in the field. Additionally, key skills
 gained through the program, including research and data analysis, are steadily increasing in
 demand. These projections align with ongoing discussions held with corporate, community, and
 academic partners, reinforcing the strong career outlook for AAEN graduates, who can earn an
 average wage of \$130,500.
- The projected enrollment in year five is 247 students.

II. Academic Program Planning Criteria (UNC Policy 400.1)

1. Relation to Campus Distinctiveness and Mission. This program offers students a distinctive blend of academic knowledge, hands-on experiential learning — including design, manufacturing, and validation — and research opportunities. Its location in Greensboro, a hub for top aerospace companies, fosters industry connections and enhances career prospects for graduates.

In addition, the AAEN program aligns with N.C. A&T's mission by promoting academic excellence, workforce development, and interdisciplinary innovation, as outlined in the university's strategic objectives. It also supports the UNC System's mission to advance knowledge and address societal needs, ensuring that graduates are well prepared to make meaningful contributions in the aerospace field.

2. Student Demand. For academic preparation of students and to meet the needs of student interest in this disciplinary field, the BS in Mechanical Engineering has offered an aerospace option at N.C. A&T during the last 20 years. N.C. A&T has provided hands-on experience with the latest technologies. In addition, the department has offered valuable internship and co-op opportunities with strong partnerships with industry leaders such as Boeing, Lockheed Martin, General Electric, Aerospace Corp., Air Force Research Lab, and NASA to mention a few. Student demand metrics highlight a growing interest in the BS in AAEN. According to the Hanover Research Report, regional growth for this degree was approximately 6.4 percent between 2018 and 2022, compared to a national growth rate of 9.1 percent over the same period.

Table 1. Other UNC System Enrolled for CIP 14.0201— Aerospace, Aeronautical and Astronautical Engineering

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
NC State	293	301	325	338	367	406

Table 2. Other UNC System Completions for Bachelor's Degrees, CIP 14.0201— Aerospace, Aeronautical and Astronautical Engineering

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
NC State	70	73	87	64	77	101

Table 3. IPEDS Peer Institutions Completions for Bachelor's Degrees, CIP 14.0201—Aerospace, Aeronautical and Astronautical Engineering

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23
New Mexico State					
University-Main	43	38	51	68	80
Campus					
Wichita State	45	62	72	67	EA
University	45	02	72	67	54

3. Employment Opportunities for Graduates. The employment outlook for aeronautical and astronautical engineers in North Carolina over the next 10 years is projected to grow by 13 percent, with an average annual wage of \$130,500. Nationally, the projected growth rate is 4.6 percent, underscoring North Carolina's significant advantage in this field.

The top employers in North Carolina are projected to be Honda Aircraft Company, Lockheed Martin, and recently Boom (located in Greensboro). Whereas the top employer nationwide is projected to be Boeing, which has a large assembly plant in South Carolina. In addition, Pratt Whitney is constructing a large plant in Asheville. The conditions exist to support a new program at N.C. A&T. In terms of labor demands, the BS in AAEN is projected to grow faster than the average for all occupations at a rate of 12.1 percent, compared to 8.2 percent for all occupations.

Table 4. Median Wage in North Carolina for SOC Codes Cross-walked to CIP 14.0201—Aerospace, Aeronautical and Astronautical Engineering

Degree Level	Educational Level Requirement	SOC Count	Median Wage
Bachelor's	Bachelor's Degree	2	\$131,770
Bachelor's	Doctoral or Professional Degree	1	\$104,940

Table 5. Estimated Employment in North Carolina for SOC Codes Cross-walked to CIP 14.0201— Aerospace, Aeronautical and Astronautical Engineering

Education Level	Count of SOC	2021	2030	Net	Percent
Requirement	Codes		Estimate	Change	Change
Bachelor's	2	5,669	6,249	580	10.2%

4. Impact on Access and Affordability. The average first-time N.C. A&T student debt at graduation

is \$19,147 and the average transfer student debt at graduation was \$15,531 for 2023 (Source N.C. A&T 2023 Performance Metrics Summary). According to Hanover research, there are 553 average annual job openings with a 12.1 percent 10-year employment growth with an overall aerospace employment in North Carolina of 7,228 for graduates in the CIP code of 14.0201. The median salary for these positions in North Carolina is \$130,500 per year, which is far above the national average of \$101,300 per year. The nationwide growth of aerospace jobs is expected to be 4.6 percent, compared to 13.6 percent in North Carolina. Finally, the debt-to-earnings ratio for a student staying in North Carolina would be .22 for a first-time N.C. A&T student and .18 for a transfer student.

5. N.C. A&T is **NOT** requesting any program-specific fees or tuition differential for this program. Tuition and fees for the 2025-26 full-time (12+/9+ credit hour) rates are as follows:

Full-Time 2025-26 Undergraduate Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	3,540	17,600
Tuition Differential	NA	NA
Mandatory Fees (Athletics, Student Activities, Health Services, Educational & Technology, Campus Security, Debt Service, ASG)	3,152	3,152
Special Fees	NA	NA

- **6. Return on Investment.** N.C. A&T's average time to degree is 4.8 years. Using the above figures for tuition and fees, in-state student expenditures for tuition and fees equal \$32,121. The median income for this position five years out from graduation is \$131,770.
- 7. Expected Quality. Upon graduation, the students will have developed an ability to identify, formulate, and solve complex engineering problems using analytical, computational, and experimental methods. In addition, the program will equip students with the skills to design and innovate aerospace systems and components, considering safety, sustainability, and cost-effectiveness. The program will seek accreditation by ABET (Accreditation Board for Engineering and Technology) after graduating its first cohort, thus ensuring high academic standards supported by faculty who have strong industry connections.
- **8. Faculty Quality and Number.** On the program's initialization, N.C. A&T will use a combination of existing Mechanical Engineering (MEEN) faculty members who have been supporting the MEEN aerospace option, and faculty possess the appropriate academic degrees and are credentialed to teach in this program. In subsequent years, the department plans to hire new faculty whenever enrollment targets are met. By the fifth year of the program's initiation, 16 faculty members and nine graduate teaching assistants will support it. The program will be able to generate resources to support the BS in AAEN program's growth and development.
- 9. Relevant Lower-level and Cognate Programs. General Engineering (GEEN) 101 Software and Design, Mechanical Engineering (MEEN) 104 Engineering Graphics CAD, Physics (PHYS 241, 251,242,252), Mathematics (MATH 131, 132, 231, 341), and Chemistry (CHEM 106, 116) are relevant lower-level cognate courses for the BS in AAEN degree. These courses help students build

a strong academic foundation and broaden their expertise, making them better prepared for their major coursework and future careers.

10. Availability of Campus Resources (Library, Space, etc.). N.C. A&T's Bluford library supports the university community by providing access to technologies, research tools, resources, and a learning environment that enriches the scholarship and creative activity of students, faculty, and staff. The library supports academic programs in the nine constituent academic colleges, covering 59 undergraduate, 35 master's, and 14 doctoral degree programs. Currently, the library boasts 36.8 million books including 20.2 million electronic books, 454 databases, 136,000 journals, 543,100 audio, videos, music, and multimedia. Librarians serve as liaisons to the various departments on campus and are available for research consultation, research instruction, and resource recommendations.

Additionally, capstone projects provide collaborative lab spaces for students to develop innovative ideas and prepare for national and international design competitions. N.C. A&T students participate in the SAE Aero Design competition, an annual event sponsored by Lockheed Martin. They also compete in the AIAA Design/Build/Fly competition, which challenges students worldwide to apply aircraft design, engineering, and flight testing to real-world aeronautical problems. Moreover, the Rocketry Team takes part in NASA's rocketry competition, where students undergo a series of design reviews with a NASA panel. This process mirrors NASA's engineering design lifecycle, providing hands-on experience that equips students with the skills needed for careers in the aeronautical workforce. The N.C. A&T students also participate in the Vertical Flight Society (VFS) Design-Build-Vertical Flight (DBVF) student competition of e-VTOL aircraft.

- **11. Existing Programs (Number, Location, Mode of Delivery).** There is one aerospace undergraduate degree offering in the same CIP within the UNC System, at NC State University. The program is offered on campus.
- **12. Potential for Unnecessary Duplication.** The BS in Aerospace Engineering at NC State is similar; however, the N.C. A&T program is broader and offers more experiential (through hands-on projects including design, manufacturing, and validation), and research opportunities and exposes students to interdisciplinary approaches.
- 13. Feasibility of Collaborative Program. The establishment of BS in AAEN program will create opportunities for cross-college collaborations within N.C. A&T, such as the chemical and electrical/computer engineering, industrial and systems engineering, physics, and computer science departments. The program will also prepare students to be strong candidates for graduate programs in the UNC System, helping to expand graduate education in the state. Across the UNC System, multiple institutions offer graduate degrees that align with the BS in Aeronautical and Astronautical Engineering program, such as the MS in Mechanical or Ph.D. programs in Mechanical, Aerospace, and Electrical/Computer Engineering. These graduate programs are located at multiple universities, including the University of North Carolina at Charlotte, N.C. A&T, Duke University, which awards certificates in Aerospace Engineering, and NC State.
- 14. Other Considerations. There are numerous public benefits of the BS in AAEN program that will be attractive to traditional, adult learners, midcareer changers, veterans, and nontraditional students looking to obtain a BS degree for greater engagement and civil defense of the United

States. North Carolina has a growing aerospace sector, with major companies such as Honda Aircraft, Lockheed Martin, General Dynamics, Northrop Grumman, General Electric, and Collins Aerospace operating in the state.

The AAEN program will help meet workforce demands by producing highly skilled engineers trained in both aeronautical and astronautical disciplines. A well-trained AAEN workforce will attract new aerospace companies and encourage the expansion of existing businesses, leading to job growth and economic development. Graduates will have the expertise to fill high-paying aerospace jobs, reducing brain drain and keeping talent within the state. Most importantly, the program will support national and state governments' missions (i.e., DoD, NASA, FAA, Homeland Security), and private space industries, contributing to national security, space exploration, and defense technology advancements.

III. Summary of Review Processes

- 1. Campus Review Process and Feedback. The proposal was reviewed by departmental faculty, college faculty, the dean of the College of Engineering, the Office of Strategic Planning and Institutional Effectiveness, chief financial officer, 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 approves North Carolina A&T State University's request to establish the Bachelor of Science (BS) in Aeronautical and Astronautical Engineering (CIP 14.0201) effective fall 2025.

Request for Authorization to <u>Establish</u> Bachelor of Science (BS) in Educational Studies CIP 13.0901

North Carolina Agricultural and Technical State University

I. Program Highlights

- North Carolina Agricultural and Technical State University (N.C. A&T) proposes the establishment of a Bachelor of Science (BS) in Educational Studies (EDST).
- EDST is designed to prepare graduates for graduate education, policy work, assessment, ed-tech, and other administrative careers in education. It is a non-licensure pathway into the field of education with concentrations designed to attract students with interdisciplinary interests that are applied to educational contexts.
- The BS in EDST has concentrations in Educational Policy and Leadership, and Educational Technology and Innovation. Each concentration area is designed to improve the human condition through a strong focus on advocacy, innovation, and research in critical areas in education. This directly aligns with the mission of N.C. A&T to advance the human condition and facilitate economic growth in North Carolina.
- Students in the EDST and Innovation concentration would be prepared for careers in the educational technology industry and in K-12 and higher education as instructional designers, curriculum developers, and support specialists. Students in the Educational Policy and Leadership concentration would be prepared to work in governmental and nongovernmental offices as research aides, policy analysts, and data and assessment staff in civic organizations and higher education institutions. All students in the major irrespective of their chosen concentration are prepared for career opportunities and graduate education that advances and supports the field of education outside of the realm of being a licensed classroom teacher.
- The projected enrollment in year five is 125 students.

II. Academic Program Planning Criteria (UNC Policy 400.1)

- 1. Relation to Campus Distinctiveness and Mission. The BS in EDST aligns with N.C. A&T's mission to "...prepare students to advance the human condition and facilitate economic growth in North Carolina and beyond by providing a preeminent educational experience through teaching, research, and scholarly application of knowledge." It aligns with N.C. A&T's strategic plan goals of transformative engagement where graduates participate in "cross-disciplinary engagement that leads to life-changing advances, improving social, economic, health and educational conditions," and leadership and innovation that creates "impactful solution-oriented thinkers and doers, fostering rich learning environments that stimulate intellectual and creative exchange with stakeholders." In addition, the curriculum and experiences support the UNC System's mission "to discover, create, transmit, and apply knowledge to address the needs of individuals and society." The EDST program also aligns with the N.C. A&T vision to be an "institution where high-achieving scholars are engaged in transformative teaching and learning, civic outreach, interdisciplinary research and innovative solutions to global challenges."
- 2. Student Demand. Currently there is no pathway for a student to obtain an education degree outside of the teacher licensure programs at N.C. A&T. This degree provides students the opportunity to engage in coursework and internships that prepare them for careers in education

that support K-12 teaching, such as educational policy, education assessment, educational technology, and educational research. This degree option is also attractive to adult learners, midcareer changers, veterans, and nontraditional learners looking to obtain a BS degree for greater engagement in civil service and public affairs in education.

Table 1. Other UNC System Enrolled for CIP 13.0101— Education, General

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
NC State	39	48	59	66	95	103

Table 2. Other UNC System Completions for Bachelor's Degrees, CIP 13.0101— Education, General

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
NC State	10	19	21	17	26	30

Table 3. IPEDS Peer Institutions Completions, Bachelor's, CIP 13.0101— Education, General

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23
The University of Texas at El Paso	0	0	0	202	269
University of Maine	1	0	1	2	10

- 3. Employment Opportunities for Graduates. Students graduating with a BS in EDST will receive a comprehensive and interdisciplinary education that leads to pathways into graduate school as well as careers in assessment, data analysis, and education policy organizations. For example, students concentrating on Educational Technology and Innovation will be prepared for careers in/as: 1. training and development managers; 2. instructional design specialists; 3. instructional technology specialists; and 4. curriculum developers in the education technology industry. Students concentrating on Educational Policy and Leadership will be prepared for careers in/as: 1. school district central office; 2. federal or state departments of education; 3. justice center policy analysts; 4. research aides or education policy analysts; and 5. educational manager for nonprofit/NGO.
- **4. Impact on Access and Affordability.** The average first-time N.C. A&T student debt at graduation is \$19,147 and the average transfer student debt at graduation was \$15,531 for 2023 (Source N.C. A&T 2023 Performance Metrics Summary). The median salary for these positions in North Carolina is \$86,400 per year, which is below the national average of \$101,300 per year. Predicted growth between 2020 and 2030 ranges from +20.61 percent to +45.32 percent. Thus, the debt-to-earnings ratio for a student staying in North Carolina would be .22 for a first-time N.C. A&T student and .18 for a transfer student.
- 5. N.C. A&T is not requesting any program-specific fees or tuition differential for this program.

Full-Time 2025-26 Undergraduate Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	3,540	17,600
Tuition Differential		

Mandatory Fees (Athletics, Student Activities,	3,152	3,152
Health Services, Educational & Technology,		
Campus Security, Debt Service, ASG)		
Special Fees		

- **6. Return on Investment.** N.C. A&T average time to degree is 4.8 years. Based on the tuition and fee figures referenced above, the total estimated in-state student expenditure for tuition and fees is \$32,121. There are no comparable undergraduate programs classified under CIP 13.0901 within the UNC System or among N.C. A&T's IPEDS peer institutions. Furthermore, income estimates for graduates of CIP 13.0901 programs five years post-graduation are currently unavailable.
- 7. Expected Quality. The BS in EDST includes concentrations in Educational Policy and Leadership, and Educational Technology and Innovation. Each concentration area is designed to improve the human condition through a strong focus on advocacy, innovation, analysis, and research in critical areas in education. The keen focus on research with high quality of faculty community engagement with school and community partners in the EDST major provides pathways into careers in education such as those found in government, businesses, education research organizations and think tanks, and higher education institutions.
- **8. Faculty Quality and Number.** There are currently nine full-time faculty to support the delivery of coursework, supervision, recruitment, retention, and advisement of students. The faculty possess the appropriate academic degrees and are credentialed to teach in this program. The department has also initiated a search to fill a current vacancy in STEM education, with specialization in technology, for a fall 2025 hire. Additional hires will be made when enrollment targets are met.
- 9. Availability of Campus Resources (Library, Space, etc.). N.C. A&T's Bluford library supports the university community by providing access to technologies, research tools, resources, and a learning environment that enriches the scholarship and creative activity of students, faculty, and staff. The library supports academic programs in the nine constituent academic colleges, covering 59 undergraduate, 35 master's, and 14 doctoral degree programs. Currently, the library boasts 36.8 million books including 20.2 million electronic books, 454 databases, 136,000 journals, 543,100 audio, videos, music, and multimedia. Librarians serve as liaisons to the various departments on campus and are available for research consultation, research instruction, and resource recommendations. There is a dedicated full-time library liaison to support the College of Education faculty's needs, in navigating and utilizing library resources for instruction and research.

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

Education Studies BS degree offerings within the UNC System				
Location	Title	CIP Code	Mode	
NC State	Applied Education Studies	13.0101	On Campus	

- **11. Potential for Unnecessary Duplication.** There is one similar undergraduate program in the state; however, N.C. A&T's program is broader and offers additional concentration areas.
- **12. Feasibility of Collaborative Program**. One of the reviewers remarked that the greatest strength of this degree program is the collaborative opportunities for the UNC System schools. In addition to law schools, multiple institutions offer graduate degrees that align with the BS in EDST such as

the MA in Educational Innovation, Technology, and Entrepreneurship; MS of Library Science; MS in School Counseling, or Ph.D. programs in Culture, Curriculum, and Teacher Education; Ph.D. in Educational Studies; Ph.D. in Educational Policy and Ph.D. programs in education. These graduate programs are located at multiple universities including Appalachian State University, East Carolina University, N.C. A&T, North Carolina Central University, NC State University, University of North Carolina at Chapel Hill, University of North Carolina at Charlotte, and University of North Carolina at Greensboro, among others.

13. Other Considerations. There are numerous public benefits of the EDST program. Degree programs that increase civic engagement and produce graduates with the knowledge and background to positively impact education in the state and nation are greatly needed. Currently, at the undergraduate level, most UNC System schools are only equipped to prepare licensed teachers in the field of education. Those seeking to impact education research, education policy, higher education student success, or educational technology must enter those fields through circuitous pathways that are not firmly grounded in the field of education. The public will benefit from a more skilled workforce in key positions in education that support public schooling and higher education.

III. Summary of Review Processes

- 1. Campus Review Process and Feedback. The proposal was reviewed by the department, college, the N.C. A&T faculty senate, the dean of the College of Education, the Office of Strategic Planning and Institutional Effectiveness, provost, and chancellor.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, North Carolina Agricultural and Technical 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 recommend that the Board approve N.C. A&T's request to establish the Bachelor of Science in Educational Studies effective fall 2025.

Request for Authorization to Establish Master of Science (MS) in Global One Health CIP 26.1305 NC State University

I. Program Highlights

- NC State University proposes the establishment of a new 36-credit hour interdisciplinary MS in Global One Health that will be delivered on campus.
- It will focus on training the next generation of leaders to solve complex One Health challenges and to discover novel findings that address the world's most pressing problems.
- The proposed program supports the mission of NC State by taking interdisciplinary approaches to emerging issues connecting plant, animal, ecosystem, and human health.
- Students will have the option to pursue either the research thesis option, which is intended for students who plan to continue in a research-related field, or a non-thesis option for those who intend to enter the workforce immediately upon graduation.
- Graduates of the proposed MS in Global One Health will be equipped with the skills to translate One Health research into real-world action for societal benefit, thereby producing the next generation of interdisciplinary global health leaders and scholars.
- Forty-one full-time students are projected to be enrolled in the program in year five.

II. Academic Program Planning Criteria (UNC Policy 400.1)

- 1. Relation to Campus Distinctiveness and Mission. NC State is the only UNC System institution to provide graduate training in veterinary medicine and the top public institution for graduate programs in engineering, agricultural science, and natural resources management, all of which are critical to an integrated, One Health approach. The proposed MS in Global One Health will support NC State's mission by taking interdisciplinary approaches to emerging issues connecting plant, animal, ecosystem, and human health. Specifically, the proposed program supports several goals in NC State's Wolfpack 2030 Strategic Plan including Goal 1: Empower students for a lifetime of success and impact; Goal 2: Ensure preeminence in research, scholarship, innovation and collaboration; Goal 6: Lead in developing innovative partnerships, entrepreneurial thinking and applied problem solving; and Goal 7: Elevate the national and global reputation and visibility of NC State.
- 2. Student Demand. Student demand for the proposed MS in Global One Health is demonstrated in several ways. Launched in 2019, the NC State Global One Health minor had an initial enrollment of nine students from eight majors. To date, 112 students from 26 majors in seven colleges have graduated with a minor in Global One Health. In a survey of recent graduates of the minor, 50 percent of respondents currently enrolled in a graduate degree program stated they would have been interested or very interested in applying for a One Health degree at NC State had such a program existed. Additional student demand for Global One Health training is reflected in the tremendous interest in the one-year graduate fellowship in Global One Health offered by NC State's Global One Health Academy. Established in fall 2023, the Academy has received 147 applications for 10 spots from within NC State alone over the past two years. Further evidence of demand is the popularity of the interinstitutional course in One Health offered by NC State, University of North Carolina at Chapel Hill, and Duke University. Both UNC-Chapel Hill and Duke

enroll 10-20 students each fall, primarily at the master's level. In fall 2024, 16 students enrolled from NC State, representing a substantial increase over previous enrollment figures.

Table 1. Other UNC System Applied Admitted Enrolled for CIP 26.1305— Global One Health

Institution	Degree Level	Counts	AY22-23	AY23-24
NA	Master's	Enrolled	NA	NA

Table 2. Other UNC System Completions for Master's Degrees, CIP 26.1305 — Global One Health

Institution	Degree Level	Counts	2022-2023	2023-2024
NA	Master's	Completions	NA	NA

Table 3. IPEDS Peer Institutions Completions for Master's Degrees, CIP 26.1305— Global One Health

Institution	AY18-19	AY19-20	AY20-21	AY21-22	AY22-23
Troy University	NA	14	3	3	6

3. Employment Opportunities for Graduates. Global public health, of which One Health is an emerging part, makes substantial contributions to the North Carolina economy as documented in the 2022 report, "The Global Health Sector's Contributions to North Carolina's Economy," produced by the North Carolina Global Health Alliance. The report estimates that this sector increases the North Carolina economy by \$31.9 billion, including directly employing around 56,000 people in well-paying jobs, with an average salary of \$108,800 for jobs directly in the global health sector. Much of the major economic activity in global health is driven by private, for-profit companies, including pharmaceutical development, biological manufacturing, and scientific research services. While the U.S. Bureau of Labor Statistics does not have One Health as a job category, related categories (epidemiologists, health sciences manager, health services manager) constitute four of the top 30 occupations for growth in demand (19-28 percent increase) and two of the top 10 occupations (U.S. Bureau of Labor Statistics, 2022).

Table 4. Median Wage for SOC Codes Cross-walked to CIP 26.1309 — Epidemiology

Degree Level	Educational Level Requirement	SOC Count	Median Wage
Master's	Master's degree	1	\$78,870

NB: the Bureau of Labor Statistics does not list One Health as a job category. No SOC code data was available at the master's level for CIP 26.1305. As a result, data for the crosswalk from a related job category was used.

Table 5. Estimated Employment for SOC Codes Cross-walked to CIP 26.1305 — Global One Health with a Matching Education Level Requirement

Education Level	Count of SOC	2021	2030 Estimate	Net Change	Percent
Requirement	Codes				Change
Master's	39	79,898	92,773	12,875	16.1%

4. Impact on Access and Affordability. Although all of the required courses in the proposed MS in Global One Health will be offered through traditional, on-campus delivery, some of the elective courses may be offered online. One challenge in addressing affordability is the lack of similar

graduate programs either at NC State or other institutions. NC State's terminal masters-level degrees have an excellent debt-to-earnings ratio overall. The weighted averages for the most significant such degrees at NC State across four colleges (Agriculture and Life Sciences, Engineering, Management, Sciences) yield a debt-to-earnings ratio of 4.6 percent. It is anticipated that the proposed graduate program will have a similar ratio. The MS in Global One Health will require 36 credits at a cost of \$36,220 for a full-time, in-state student compared to both the University of North Carolina at Chapel Hill Master of Public Health (MPH; 42 hours; \$72,870) and East Carolina University's Master of Science in Environmental Health (MSEH; 45 hours; \$58,852).

5. NC State is requesting a tuition differential for the proposed MS in Global One Health.

Full-Time 2024-2025 M.S. Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	10,230.00	31,528.00
Tuition Differential	5,600.00	5,600.00
Mandatory Fees (Athletics, Student Activities, Health	2,280.00	2,280.00
Services, Educational & Technology, Campus Security,		
Debt Service, ASG)		
Special Fees	0.00	0.00

- **6. Return on Investment.** Students who enroll in this program on a full-time basis will be expected to complete the degree in four full-time terms or two years. Using the above figures for tuition and fees, in-state student expenditures for tuition plus differential and fees equals \$36,220. Based on the related job category in Table 5, the North Carolina median income for this position five years from graduation is \$78,870.
- 7. Expected Quality. As part of the proposed MS in Global One Health, students will complete 10 credit hours of Global One Health core courses, four credits in research or experiential learning, 13 credit hours of additional coursework, research, or experiential learning, and nine credit hours of electives. Students will have the option to pursue either the thesis track or the non-thesis track. A maximum of six years will be allowed for completion of the program.

Among the admissions requirements are an undergraduate GPA of 3.0 or better and an undergraduate degree in any discipline from an accredited college or university. Once admitted to the program, students will be required to maintain an average GPA of 3.0.

- 8. Faculty Quality and Number. The proposed MS in Global One Health will have a core group of 10 faculty who are directly responsible for the direction and implementation of the program, including curriculum development and instruction of the core courses in Global One Health. In addition to the core faculty, the program will benefit from a broad group of faculty from across NC State as faculty advisors for students in the program. These faculty are engaged in research related to One Health and have demonstrated interest in engaging with interdisciplinary research, education, and engagement initiatives in the One Health realm.
- 9. Relevant Lower-level and Cognate Programs. Currently, there is one cognate program at the undergraduate level at NC State, which is the Global One Health minor. The proposed program will also draw upon multiple subject-matter field strengths at NC State, including but not limited

to ecology, design, engineering, environmental assessment, food safety, entomology, geospatial analytics, and entrepreneurship.

- 10. Availability of Campus Resources (Library, Space, etc.). The proposed program will make use of existing resources at NC State with minimal impact on infrastructure. The present library holdings are adequate and accessible for the proposed MS in Global One Health. Other institutional libraries are not expected to be used.
- 11. Existing Programs (Number, Location, Mode of Delivery). No institutions within the UNC System offer a degree program in Global One Health. Due to its interdisciplinary curriculum, the Master of Public Health (MPH) provides a similar degree for comparison. The MPH at UNC-Chapel Hill has 13 concentrations and is offered on-campus, off-site, and online. While many of their concentrations have themes that intersect with those of NC State's intended program, the foundational theory and goals of the training are fundamentally distinct.

The MPH offered by the University of North Carolina at Charlotte is offered on-campus only. The goal of the program is to train students who will improve the health and wellness of humans, both locally and globally. The MPH offered by Appalachian State University is offered on-campus and online. Consistent with its public health focus, the App State program centers on promoting and protecting health by preventing illness and injury in human populations. ECU's MPH and MSEH programs are both offered on-campus and online. The MPH program is housed in ECU's Brody School of Medicine. Given its medical school home and the fact that it is a public health degree, the focus is on reducing disease and improving health in human populations.

- **12. Potential for Unnecessary Duplication.** The proposed MS in Global One Health will not duplicate any existing degree programs in the UNC System, though it is acknowledged that there are graduate programs within the UNC System where select course content may be viewed as similar or overlap.
- 13. Feasibility of Collaborative Program. The proposed MS in Global One Health will leverage existing strengths at NC State to create an interdisciplinary program that can provide fertile ground for collaborations with other programs, both within NC State and at other UNC System institutions. Specifically, the proposed program will complement existing programs at UNC-Chapel Hill and provide collaborative opportunities with UNC-Chapel Hill, UNC Charlotte, ECU, and other universities within and beyond North Carolina.
- 14. Other Considerations. None

III. Summary of Review Processes

 Campus Review Process and Feedback. The proposal was reviewed by the NC State faculty (department and college committees), Administrative Board of the Graduate School (ABGS), Graduate Operations Council (GOC), Council of Deans, chief financial officer, provost, chancellor's cabinet, the chancellor, and the NC State board of trustees. Approval and support were provided at all levels. **2. UNC System Office Review Process and Feedback.** Throughout the review process, NC 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 recommend that the Board of Governors approve NC State University's request to establish the Master of Science (MS) in Global One Health (CIP 26.1305) effective fall 2026.

Request for Authorization to Establish Bachelor of Science (BS) in Cybersecurity CIP 11.1003

University of North Carolina at Greensboro

I. Program Highlights

- The University of North Carolina at Greensboro proposes the establishment of a BS in Cybersecurity.
- The program is designed to prepare students to address the growing societal and technical needs around information security and data privacy. Students will obtain the knowledge and skills essential in this growing industry to protect vulnerable organizations and critical infrastructure from cyberattacks. This establishment request elevates an existing concentration from another degree program to a full degree major. The cybersecurity concentration was launched in fall 2019; enrollment in the concentration has grown to 173 students for fall 2024, indicating sufficient demand for this concentration to move to a stand-alone degree program.
- The program addresses multiple UNC Greensboro goals, including access, affordability, efficiency, economic impact, and community engagement. The program will also address UNCG and the UNC System's mission to create new knowledge that addresses the needs of society while preparing graduates, including working adults, for in-demand careers vital to the future of both the Triad region and the state of North Carolina.
- The cybersecurity degree program will address a critical workforce need in the state and region.
 The program will align with the new Spartan Cyber Guardian Academy in the Bryan School of
 Business and Economics, funded by a \$1 million grant from Google's Cybersecurity Clinics Fund.
 The academy will train students to provide essential cybersecurity services, including auditing,
 training, and remediation, to nonprofit organizations, small businesses, and all entities within the
 Piedmont Triad region that lack resources or dedicated cybersecurity teams.
- Students will pursue careers as information security analysts, cybersecurity analysts, network security administrators, or compliance analysts that help protect an organization's computer networks and systems, monitor for security breaches, investigate incidents, and develop strategies to enhance security.
- The projected enrollment in year five increases to 158 full-time and 37 part-time from current enrollment in the concentration of 142 full-time and 33 part-time.

II. Academic Program Planning Criteria (UNC Policy 400.1)

- Relation to Campus Distinctiveness and Mission. The program will prepare our students for successful careers and address the growing demand for cybersecurity professionals. The program, in conjunction with the Spartan Cyber Guardian Academy, will also help educate the broader community on cybersecurity awareness and address cybersecurity issues. The program also fosters research and innovation in the field of cybersecurity.
- 2. Student Demand. The existing concentration was launched in fall 2019; current enrollment has grown to 173 students in fall 2024, indicating strong demand for this degree program. This is consistent with broader national and regional trends of a growing demand for cybersecurity programs among students that is driven by high job demand and industry needs.

Table 1. Other UNC System Enrolled for CIP 11.1003— Computer and Information Systems Security/Auditing/Information Assurance

Institution	Degree Level	Counts	AY22-23	AY23-24
FSU	Bachelor's	Enrolled	5	78
UNCP	Bachelor's	Enrolled	3	42
UNCW*	Bachelor's	Enrolled	68	149

^{*}Cybersecurity programs at these institutions began as concentrations under an IT CIP.

Table 2. Other UNC System Completions for Bachelor's Degrees, CIP 11.1003—Computer and Information Systems Security/Auditing/Information Assurance

Institution	Degree Level	Counts	2022-23	2023-24
UNCW	Bachelor's	Completions	1	9

Table 3. IPEDS Peer Institutions Completions for Bachelor's Degrees, CIP 11.1003—Computer and Information Systems Security/Auditing/Information Assurance

Institution	AY18-19	AY19-20	AY20-21	AY21-22	AY22-23
Northern Arizona	0	0	0	1	1
University					
The University of	199	268	355	356	398
Texas at San					
Antonio					
University of	0	0	0	0	0
Nevada-Las Vegas*					

^{*}UNLV offers but has not awarded the degree.

3. Employment Opportunities for Graduates. According to CyberSeek, there are currently 36,048 people employed and 13,626 job openings in cybersecurity in North Carolina, indicating a significant need for more cybersecurity professionals. The Bureau of Labor Statistics reports that the nationwide average salary for information security analysts is \$120,360 and the job outlook over the next decade predicts 32 percent average annual job growth in these positions, which is much higher than the three percent job growth expected for all other positions. The average salary in North Carolina (\$128,720) and in the Greensboro/ High Point SMSA (\$124,530) are both higher than the national average.

Table 4. Median Wage for SOC Codes Cross-walked to CIP Code: 11.1003 - Computer and Information Systems Security/Auditing/Information Assurance

Degree Level	Educational Level Requirement	SOC Count	Median Wage
Bachelor's	Some College or Associate's Degree	1	\$70,050
Bachelor's	Bachelor's Degree	6	\$119,980

Table 5. Estimated Employment in North Carolina for SOC Codes Cross-walked to CIP Code: **11.1003** with a Matching Education Level Requirement

	0				
Education Level	Count of SOC	2021	2030	Net	Percent
Requirement	Codes		Estimate	Change	Change

Bachelor's	6	42,402	49,696	7,294	17.20%
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4. Impact on Access and Affordability. UNCG is ranked as North Carolina's most affordable (net cost rank) university by the New York Times and recognized by the U.S. Department of Education for "excelling in access in success" with Pell-eligible students. The Bryan School has been the leader at UNCG in providing online programs and has the highest online enrollment of all academic units at UNCG. Online delivery makes it possible for nontraditional students to attend college.

UNC Greensboro is not requesting any program-specific fees or tuition differential for this program. Tuition and fees for the 2025-26 academic year full-time (12 + credit hour) rates are as follows:

Table 6. Full-Time 2025-26 Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	4,422	21,396
Tuition Differential	NA	NA
Mandatory Fees (Athletics,	3,184	3,184
Student Activities, Health		
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		
Special Fees	NA	NA

- **5. Return on Investment.** UNCG's average time to degree is 4.4 years. Using the above figures for tuition and fees, in-state student expenditures for tuition and fees equal \$33,466. The median income for this position five years out from graduation is \$119,980.
- 6. Expected Quality. The program is expected to deliver high-quality, career-ready graduates. The program requires 120 semester hours that include general education requirements, major requirements, and elective courses. The Bryan School of Business and Economics is accredited by the AACSB International, which ensures that the program meets a high standard of excellence in business education. The required business core ensures that students gain a solid foundation in business principles. The Bryan School provides various support services, including academic advising, career counseling, and professional development workshops. The required Bryan Blueprint series requires students to engage with industry professionals and develop career-ready skills. These resources help students navigate their academic journey and prepare for their future career. The department maintains an industry advisory board, and students have access to a network of alumni and industry professionals, which provides valuable connections and opportunities for mentorship, internships, and job placements.
- 7. Faculty Quality and Number. In fall 2025, UNCG will have 15 full-time faculty positions in the information systems area. Thirteen of these positions are tenured and tenure-track positions. The department has focused on replacement searches to hire in cybersecurity over the last several years due to the growing demand. As a result, four of the existing faculty have an academic concentration in cybersecurity. In addition, three of the long-serving senior faculty have migrated their interests over time to both teach and do research in cybersecurity and privacy areas.

The department is the first university in the state of North Carolina to receive \$1 million in grant funding and wraparound support from Google's Cybersecurity Clinics Fund. The grant will establish the Spartan Cyber Guardian Academy — a cybersecurity clinic at UNCG — that will train high school, community college, and four-year college students to assist small business and nonprofit institutions with their cybersecurity needs. This recognition indicates the quality of the department faculty in the cybersecurity area. From 2019 to 2024, the department faculty published 83 peer-reviewed journal articles with many being in the leading journals in information systems. Four of the senior faculty serve in a total of eight editorial positions, which indicates their reputation as scholars in the discipline.

- 8. Relevant Lower-level and Cognate Programs. The program is designed to build upon existing expertise and specializations at the lower academic levels. It incorporates foundational business courses that are part of lower-level degree requirements. These requirements align with those required for associate degree programs from North Carolina community colleges, which facilitate transfer and continuing students' enrollment. The courses provide students with a strong business background essential for the cybersecurity degree. The curriculum is structured to introduce more advanced and specialized topics as students progress through the program. Students begin with fundamental courses in information systems and cybersecurity before moving on to more complex subjects such as network security, ethical hacking, and cybersecurity policy. The program emphasizes practical, hands-on learning experiences that build on the technical skills acquired in lower-level programs.
- **9. Availability of Campus Resources (Library, Space, etc.).** The existing space and infrastructure are sufficient to support the program.
- 10. Existing Programs (Number, Location, Mode of Delivery). There are two other BS in Cybersecurity programs within UNC System business schools: Appalachian State University and University of North Carolina Wilmington. Like UNCG Bryan School of Business and Economics, both institutions created a cybersecurity concentration in an existing degree program prior to creating a separate degree program. Both had a similar experience of increasing student demand and employer demand that led to moving the concentration to a degree. Fayetteville State University and University of North Carolina at Pembroke both have BS in Cybersecurity degree programs that reside in departments of math and computer science yet are in the same CIP as this degree program proposal. The College of Engineering and Technology at East Carolina University offers the BS in Information & Cybersecurity Technology. The degree programs offered at App State and ECU reside in a different CIP and are not reported in the tables included in this document.

Table 7. Snapshot of existing cybersecurity degree programs across the UNC System

Institution (Prog Est Date)	Department	CIP 11.1003	CIP 11.0103	Delivery Mode
UNCG	Business	х		Campus
ASU* (5/23/24)	Business	х		Campus/Hickory
UNCW (7/22/21)	Business	х		Campus
FSU (7/20/22)	Math/Comp Sci	х		Campus/Online

UNCP (6/23/22)	Math/Comp Sci	х		Campus/Online
ECU**	Cybersecurity		х	Campus/Online
	Technology			

^{*}This degree program was approved for fall 2024. **This is a PKH degree program.

11. Potential for Unnecessary Duplication. The proposed degree program, like those at App State and UNC Wilmington, is in the business school. While those programs bear resemblance to the UNCG program, there is geographic distance across the programs, with the UNCG program being the only program to serve the Piedmont Triad region (our primary service region). In addition, there are differences across these campuses in the type of students served. The business school programs are not the same as programs that have a core in engineering and/or computer science and are not intended to be. These programs are not competitors but serve a different market and different needs within the UNC System.

Of these other programs, only one has an online option. That online degree is at FSU and is housed in the Math and Computer Science department. The degree is different from a business-focused degree. By contrast, UNCG has both an on-campus and online option and the only fully online business school-based cybersecurity program. The online program provides access to those nontraditional students and some college, no degree students who are unable to make a traditional on-campus program work due to work commitments, family commitments, or their location.

12. Feasibility of Collaborative Program. Students at other campuses, especially those in the business school programs, may take UNCG's online courses as needed to help them stay on track to graduate. There are likely meaningful opportunities for collaborations, especially through potential research and funding opportunities across the programs and faculty. Those options will be explored going forward, including with those programs outside of the business schools where there seem to be some significant opportunities to combine our different areas of focus and expertise in research and especially funded research. As a part of the newly inaugurated Spartan Cyber Guardian Academy, there will be collaborations with institutions in North Carolina to hold biennial workshops and colloquiums to have discussions on cybersecurity topics. These events will provide opportunities to upskill UNCG faculty and students and share best practices in running cybersecurity programs across North Carolina.

III. Summary of Review Processes

- Campus Review Process and Feedback. The program has been reviewed and approved at the
 following internal levels: the Office of Assessment, Accreditation, and Academic Program
 Planning; Management Department Curriculum Committee; Management Department head;
 Bryan School Undergraduate Program Committee; Bryan School associate dean; and the UNCG
 Undergraduate Curriculum Committee.
- **2. UNC System Office Review Process and Feedback.** Throughout the review process, UNCG 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 approves University of North Carolina at Greensboro's request to establish the Bachelor of Science (BS) in Cybersecurity (CIP 11.1003) effective fall 2025.

Request for Authorization to <u>Establish</u> Bachelor of Science (BS) Degree in Human Resource Management CIP 52.1001

University of North Carolina at Greensboro

I. Program Highlights

- The University of North Carolina at Greensboro proposes the establishment of a BS in Human Resource Management.
- UNC Greensboro will elevate the current concentration in Human Resource Management to a stand-alone degree. The program provides comprehensive skill development in human resource management and to meet the growing demand for skilled human resource professionals. The degree will provide students with an understanding of key human resource (HR) functions such as recruitment, training and development, compensation and benefits, employee relations, and compliance with labor laws. This program is aligned with the Society for Human Resource Management (SHRM) human resource curriculum guidelines for undergraduate programs.
- The degree program supports the missions of both UNCG and the UNC System to create new
 knowledge that addresses the needs of society and prepares graduates, including working adults,
 for careers that are in demand and vital to the future of the Triad region and the state of North
 Carolina. This is especially true for working adult students seeking flexible, career-aligned
 educational opportunities.
- The degree will support the economic development goals of the Triad region and the state of North Carolina. The employment of HR specialists and managers is projected to grow faster than average for other occupations based on Bureau of Labor Statistics projections. Having a full degree in Human Resource Management, rather than listed as a concentration, will help these students stand out in the labor market.
- Graduates will pursue careers in Human Resource Management. The North Carolina Department of Commerce's NCCareers.org provides ratings for different occupations, and both the HR specialists and HR managers are rated as five-star occupations. The HR specialist occupational category is given "Very Strong Opportunity" in terms of job growth with 2,987 average annual job openings in North Carolina, and the HR Manager occupational category is given a "Strong Opportunity" rating for average annual job openings of 568. The job openings in the HR specialist occupational category rank it as the sixth highest occupation in terms of projected average annual job growth among jobs that require a bachelor's degree in North Carolina. The HR occupation is one where there is demonstrated future demand for those with a bachelor's degree.
- Five-year enrollments: The project enrollment in five years is 147 full-time and 50 part-time.

II. Academic Program Planning Criteria (UNC Policy 400.1)

1. Relation to Campus Distinctiveness and Mission.

The degree program supports the missions of both UNCG and the UNC System — to create new knowledge that addresses the needs of society and prepares graduates, including working adults, for careers that are in demand and vital to the future of the Triad region and the state of North Carolina. HR management is an in-demand area with projected employment growth in the state and region. UNCG students have already demonstrated interest in the degree program through the strong enrollment growth in the concentration. Having the degree available as a 100 percent

online degree program will help UNCG meet their goals of accessibility and provide education opportunities for nontraditional students, including those with some college but no degree.

2. Student Demand.

This request is converting an existing concentration within the Bryan School of Business and Economics into a full, stand-alone degree program. The enrollment in the concentration is listed in the table below. Between fall 2020 and fall 2022, enrollment in the HR Management concentration declined from 103 to 74 students. However, by fall 2024, the headcount had rebounded to 171 students, marking a significant upswing in interest and recovery from effects of the pandemic. The addition of online delivery in fall 2024, coupled with the departmental alignment of the program's curriculum with the SHRM curriculum guidelines, has resulted in an increase in demand, especially among online and nontraditional students.

Human Resource Management Concentration Enrollment Headcount						
Fall 2020 Fall 2021 Fall 2022 Fall 2023 Fall 2024						
103	101	74	102	171		

Table 1. Other UNC System Enrolled for CIP 52.1001— Human Resources Management, Bachelor's

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
UNC-CH	232	223	246	260	330	360

Table 2. Other UNC System Completions for Bachelor's CIP 52.1001— Human Resources Management

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
UNC-CH	88	82	87	81	95	115

Table 3. IPEDS Peer Institutions Completions for Bachelor's Degrees, CIP 52.1001—Human Resources Management

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23
Portland State University	148	134	161	125	122
The University of Texas at San Antonio	32	15	2	0	0

3. Employment Opportunities for Graduates.

The employment of HR specialists and managers is projected to grow faster than average for other occupations. The current labor market outlook from the Bureau of Labor Statistics for the entry-level HR specialist position indicates that annual job growth will be above average at 6 percent per year, with over 50,000 new jobs in the next decade. Nationwide, the annual median salary is \$67,650, which is just over 40 percent more than the median wage for all occupations. The annual median salary in the Greensboro-High Point SMSA is \$65,960; for North Carolina, it is \$73,010. For more advanced HR manager positions requiring a bachelor's degree and work experience, there are 15,500 new openings projected over the next decade. The annual median salary in the Greensboro-High Point SMSA is \$129,500; for North Carolina it is \$141,540 and nationwide it is

\$136,500. Having a degree in HR Management rather than a listed concentration will help these students stand out in the labor market. The UNC System return on investment (ROI) dashboard reports Business, Management, Marketing, and Related Support Services, which contains the human resources management area, as among the top 10 highest ROI programs at UNCG with a \$22.18 increase in incremental lifetime earnings per incremental state appropriation dollar for the 2020-21 academic year and similar dollar values for the two prior years.

Table 4. Median Wage for SOC Codes Cross-walked to CIP Code: 52.1001 - Human Resources Management

Degree Level Educational Level Requirement		SOC Count	Median Wage
Bachelor's	Some College or Associate's Degree	1	\$38,180
Bachelor's	Bachelor's Degree	8	\$60,360

Table 5. Estimated Employment in North Carolina for SOC Codes Cross-walked to CIP Code: 52.1001 with a Matching Education Level Requirement

Education Level	Count of SOC	2021	2030	Net	Percent
Requirement	Codes		Estimate	Change	Change
Bachelor's Degree	8	57,708	64,559	6,851	11.9%

4. Impact on Access and Affordability.

UNCG is ranked as North Carolina's most affordable (net cost rank) university by the New York Times and recognized by the U.S. Department of Education for "excelling in access in success" with Pell-eligible students. The Bryan School has been the leader at UNCG in providing online programs and offering the most programs and has the highest online enrollment of all academic units at UNCG. Online delivery makes it possible for nontraditional students to attend college. UNCG is not requesting any program-specific fees or tuition differential for this program. Tuition and fees for the academic year full-time (12 + credit hours) rates are as follows:

Full-Time 2025-26 Undergraduate Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	4,422	21,396
Tuition Differential	NA	NA
Mandatory Fees (Athletics,	3,184	3,184
Student Activities, Health		
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		
Special Fees	NA	NA

5. Return on Investment.

UNC Greensboro's average time to degree is 4.5 years. Using the above figures for tuition and fees, in-state student expenditures for tuition and fees equal \$33,466. The median income for this position five years out from graduation is \$60,360.

6. Expected Quality.

The program is expected to prepare graduates who are ready to enter the workforce as entry-level human resource professionals. The BS in HR Management requires 120 credit hours,

including general education requirements, major requirements, and elective courses. The degree meets the requirements to be aligned with the SHRM curriculum guidelines. The required business core ensures that students gain a solid foundation in business principles. The Bryan School is accredited by AACSB International, which ensures that the program meets high standards of excellence in business education. The Bryan School provides various support services, including academic advising, career counseling, and professional development workshops. The required Bryan Blueprint series requires students to engage with industry professionals and develop career-ready skills. These resources help students navigate their academic journey and prepare for their future careers.

7. Faculty Quality and Number.

The Department of Management has 17 tenured and tenure-track faculty and four full-time professional-track faculty, including eight faculty that specialize in organizational behavior and/or HR management. The department hired one additional assistant professor in the HR management area to start fall 2025.

In the five-year period 2019 to 2024, the faculty in the Department of Management published 170 peer-reviewed journal articles, with roughly 20 percent of these papers being published in journals recognized as the leading journals in the discipline. Two department faculty members were among the top two percent most-cited researchers around the world, according to the 2023 Stanford-Elsevier List. The faculty members have been recognized with Fulbright Awards and multiple best paper awards from the Academy of Management. Department faculty serve in a combined 38 journal editorial positions, including leading journals in HR Management such as Human Relations, Journal of Vocational Behavior, Human Resource Development Quarterly, Human Resource Management, and the International Journal of Human Resource Management.

8. Relevant Lower-level and Cognate Programs.

The program includes foundational courses in business and management that are common in lower-level academic programs. These courses ensure that students have a solid understanding of basic business principles before advancing to specialized HR topics. The curriculum is designed to gradually introduce more complex and specialized topics as students progress through the program.

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

Existing library resources are sufficient to support the program. No additional space is needed.

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

The only institution we can find that offers a degree program with the 52.1001 HR Management/Personnel Administration, General CIP code is the BA in Human and Organizational Leadership Development offered by the School of Education at University of North Carolina at Chapel Hill. That particular degree program is offered only on campus and has a focus on educational leadership. Appalachian State University, East Carolina University, University of North Carolina Wilmington, North Carolina Central University, and NC State University all offer a HR management concentration in another degree program within their business schools. App State offers that concentration 100 percent online, and ECU offers that concentration through an online degree-completion program.

11. Potential for Unnecessary Duplication.

The only degree program offered in the system is a BA in Human and Organizational Leadership Development in the School of Education at UNC-Chapel Hill focused more on educational leaders. This program would be the first degree program in HR Management offered in the UNC System. To the extent that the concentrations at other system business schools are similar, there would be no unnecessary duplication because we already have a large human resources concentration that has been growing without having a negative impact on other programs in the system.

12. Feasibility of Collaborative Program.

UNCG faculty regularly interact with those within their own disciplines at other system schools through professional organizations. Beyond frequent and meaningful exchange of information UNCG does not see a need for further collaboration in terms of academic programming but would welcome opportunities presented from other schools in the UNC System.

III. Summary of Review Processes

1. Campus Review Process and Feedback.

The program has been reviewed and approved at the following internal levels: the Office of Assessment, Accreditation, and Academic Program Planning; Management Department Curriculum Committee; Management Department head; Bryan School Undergraduate Program Committee; Bryan School associate dean; and the UNCG Undergraduate Curriculum Committee.

2. UNC System Office Review Process and Feedback. Throughout the review process, the University of North Carolina at Greensboro 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 approves University of North Carolina at Greensboro's request to establish the Bachelor of Science (BS) in Human Resources Management (CIP 52.1001) effective fall 2025.

Request for Authorization to Establish Bachelor of Science (BS) in Public Policy and Administration CIP 44.0501

University of North Carolina Wilmington

I. Program Highlights

- The University of North Carolina Wilmington proposes the establishment of a BS in Public Policy and Administration.
- The decision to form a BS in Public Policy and Administration in the Department of Public and International Affairs (PIA) at UNC Wilmington is primarily driven by the desire to provide a growing undergraduate student body with new programs that employ more analytical and applied skills and tools that would enable our students to better succeed in the broad expanse of public, civic, and nonprofit affairs occupations and professions. Due in part to growing graduate programs in the department, the unit possesses the academic backgrounds to offer incoming undergraduate students a wider variety of course options than are currently offered within our BA program in Political Science. Also, the new degree program will incorporate areas of expertise and competencies present within other academic units at UNCW to provide students with additional perspectives and instruction in marketable analytical and applied skills.
- The establishment of a degree program in Public Policy and Administration directly addresses the core mission of the UNC System. Recent updates to the UNCW strategic plan have focused on several aspects of interdisciplinarity, and we believe that a new baccalaureate degree in Public Policy and Administration with its rigorous curriculum would further UNCW's intent to foster a rich and interdisciplinary student experience through teaching excellence.
- As articulated above, this program will provide students with core knowledge and enhanced analytical skills important for future workers in many areas of public and nonprofit service as well as the private sector. More than most academic programs within the UNC System, this degree program will also instruct and educate future leaders in the spirit of the *Foundations of American Democracy* initiative beyond the current three credit hour requirement that has been under development for the past two years.
- Students will be prepared for employment in various public, nonprofit, and for-profit agencies
 and firms. Graduates of this program will engage in rigorous and meaningful work as managers,
 management analysts, budget analysts, policy analysts, research technicians, city and regional
 planners, legislative aides, lobbyists, and consultants, among other occupations. Students will also
 be well prepared to enroll in various postgraduate degree programs upon completion of this
 degree.
- Projected enrollment in year five is 156 full-time, on-campus students.

II. Academic Program Planning Criteria (UNC Policy 400.1)

- 1. Relation to Campus Distinctiveness and Mission. The proposed program provides a new and unique academic opportunity for UNCW students. Students will receive rigorous instruction across several fields and disciplines. The coursework will be provided by several UNCW academic units, providing support to the UNCW mission to incorporate interdisciplinary approaches in the provision of instruction to students as well as the overall utilization of existing faculty expertise.
- 2. Student Demand. Based on their external labor market demand analysis provided to UNCW for this program, Hanover Research stated that "After reviewing the student and labor market

demand and competitive landscape, Hanover is recommending that you move forward with the bachelor's in public policy and administration." In their analysis, Hanover Research highlighted the positive labor market demand for this degree program in North Carolina and the Southeast United States, the stability of that demand, and the example of the success of the University of North Carolina at Chapel Hill program as showing great promise for this program.

Institutions that offer both political science and public policy/administration degrees have conferral growth rates/declines that are nearly identical to the average for each program, indicating that political science programs do not appear to be adversely affected by also offering a public policy/public administration degree(s) — that is, public policy programs do not appear to be cannibalizing political science programs. Additionally, during the UNC System comment review process, NC State University offered the following, "NC State has more demand than we can meet. While we don't have a program in public policy per se, this program proposal and the faculty leading it are well-positioned to provide students with-in demand skills in public affairs analysis." Public policy degrees have seen above average growth over the last five years in North Carolina, the Southwest, and across the United States.

Table 1. Other UNC System Enrolled for CIP 44.0501—Public Policy Analysis, General

Institution	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
UNC-CH	469	497	521	470	468	512

Table 2. Other UNC System Completions for Bachelor's Degrees, CIP 44.0501—Public Policy Analysis

Institution	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
UNC-CH	173	168	186	166	157	159

Table 3. IPEDS Peer Institutions Completions for Bachelor's Degrees, CIP 44.0501—Public Policy Analysis, General

Institution	AY18-19	AY19-20	AY20-21	AY21-22	AY22-23
University of Rhode Island	33	26	20	41	28
Western Washington University	0	0	0	0	0
William & Mary	48	54	52	52	48

3. Employment Opportunities for Graduates. As articulated above, graduates of this program will engage in rigorous and meaningful work as public managers, management analysts, budget analysts, policy analysts, research technicians, city and regional planners, legislative aides, lobbyists, and consultants, among other occupations.

Table 4. Median Wage in North Carolina for SOC Codes Cross-walked to CIP 44.0501—Public Policy Analysis, General

Degree Level Educational Level Requirement		SOC Count	Median Wage	
Bachelor's	Bachelor's Degree	1	\$48,870	

Table 5. Estimated Employment in North Carolina for SOC Codes Cross-walked to 44.0501—Public Policy Analysis, General with a Matching Education Level Requirement

Education Level Requirement	Count of SOC Codes	2021	2030 Estimate	Net Change	Percent Change
Bachelor's	1	2,717	2,980	263	9.70%

4. Impact on Access and Affordability. UNCW is not requesting any program-specific fees or tuition differential for this program. In that respect, this program will be no different from other system programs with respect to prospective student debt issues. Tuition and fees for the full-time (12+/9+ credit hour) rates are as follows:

Full-Time 2025-26 Undergraduate Tuition and Fees per Year (In Dollars)

Category	Resident	Nonresident
Tuition	\$4,443	\$22,597
Tuition Differential	None	None
Mandatory Fees (Athletics,	\$2,824	\$2,824
Student Activities, Health		
Services, Educational &		
Technology, Campus Security,		
Debt Service, ASG)		
Special Fees	None	None

- **5. Return on Investment.** UNCW's average time to degree is 4.0 years. Using the above figures for tuition and fees, in-state student expenditures for tuition and fees equal \$29,064. The median income for this position five years out from graduation is \$48,870.
- 6. Expected Quality. By employing a diverse faculty within the Department of Public and International Affairs and from several other departments across our university, we will offer a high quality and rigorous public policy and administration degree with a solid core in public policy and administration as well as concentrations in federalism, nonprofit management and policy, economic development, and environmental policy. Students are required to demonstrate advanced analytical abilities by enrolling in advanced skill-based courses beyond their general requirements in the areas of math, statistics, economics, research design and analysis, computer science, and/or geographic information systems.
- 7. Faculty Quality and Number. Twelve faculty members from the Department of Public and International Affairs with graduate degrees from several fields and disciplines (Public Policy, Public Administration, Public Affairs, Environmental Science, Geography, Political Science, and Urban Planning) will be involved in the academic core and concentration instruction of program students. Additionally, several members from the departments of Computer Science, Earth and Ocean Sciences, Economics and Finance, English, and Mathematics and Statistics will provide instruction in the skill-based elective courses that the students will take as part of their requirements.
- **8. Relevant Lower-level and Cognate Programs.** This degree is designed to utilize existing courses from the primary department of administration Public and International Affairs along with key courses that focus on various analytical skills from other departments: Computer Science,

Economics and Finance, English, Earth and Ocean Sciences, and Mathematics and Statistics. All of these departments have enthusiastically agreed to participate in this program.

- **9. Availability of Campus Resources (Library, Space, etc.).** Existing space and resources located at UNCW will enable this program to succeed.
- 10. Existing Programs (Number, Location, Mode of Delivery). Currently, the only other Public Policy undergraduate program in the UNC System is UNC-Chapel Hill, which has a BA in Public Policy (CIP 44.0501).
- **11. Potential for Unnecessary Duplication.** UNC-Chapel Hill is the only institution currently offering a degree (BA) in Public Policy (CIP 44.0501). It is offered on campus. There are no programs in the UNC System that offer the program in an online, distance, or off-campus format. Therefore, there is no concern related to program duplication.
- **12. Feasibility of Collaborative Program.** This degree is located for on-campus delivery at UNCW. Student transfers to UNCW will have appropriate coursework accepted into the program. UNCW welcomes further collaboration with other campuses as appropriate.

III. Summary of Review Processes

- Campus Review Process and Feedback. This program was reviewed by relevant deans, associate
 deans, associate provosts, and the provost at UNCW before it was rigorously evaluated and
 approved by the UNCW College of Arts and Sciences Curriculum Committee and the UNCW
 Faculty Senate.
- 2. UNC System Office Review Process and Feedback. Throughout the review process, the University of North Carolina Wilmington 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 approves the University of North Carolina Wilmington's request to establish the Bachelor of Science (BS) in Public Policy and Administration (CIP 44.0501) effective fall 2026.

Request for Authorization to Establish Bachelor of Science in Mechanical Engineering (BSME) CIP 14.1901 Western Carolina University

I. Program Highlights

- Western Carolina University proposes the establishment of a Bachelor of Science in Mechanical Engineering (BSME).
- The content of the proposed program has been offered at WCU as a concentration, nested within a Bachelor of Science (BS) in Engineering degree, and currently enrolls 211 students. The aim of the proposed program is to create a stand-alone degree that more transparently showcases students' mechanical engineering focus and can be accredited by ABET using the Mechanical Engineering program-specific criteria. The stand-alone degree program would be more recognizable for prospective students as well as employers. It would also provide a straightforward professional engineering licensure pathway for program graduates.
- The proposed program directly supports many aspects of WCU's strategic plan, including the provision of experiential learning as well as the creation of societal and global impacts including: Goal 1.1: Deliver high-quality programs that prepare students for career fields, 1.1.2: Pursue opportunities for new/revised academic programs; and Goal 4.1: Be the leader in workforce growth and development in Western North Carolina, 4.1.1: Increase the number of graduates in growth sectors, including engineering.
- The proposed program will provide homegrown talent and technical expertise for enabling business and industry to thrive and will encourage economic development that might not otherwise occur.
- Graduates with a BSME degree will have direct employment opportunities in the engineering sector and allied occupations. The Bureau of Labor Statistics projects a seven percent increase in employment in this field by 2033, with a slightly higher increase of 11 percent for bachelor's-level mechanical engineers, specifically.
- WCU is targeting substantial enrollment growth for this program, expanding from 200 to 500 total students over the next five years. WCU's recurring apportionment of \$3.5 million allocated for engineering expansion in Session Law 2023-134 (HB 259) will be the source of funding for the initial investment in the proposed BSME program.

II. Academic Program Planning Criteria (UNC Policy 400.1)

1. Relation to Campus Distinctiveness and Mission.

WCU has a robust engineering program, and outside of the mechatronics program at University of North Carolina Asheville, is the only source of engineering education in North Carolina west of Charlotte. Our programs currently include electrical engineering, electrical and computer engineering technology, and engineering technology, as well as a general engineering program with concentrations in robotics and automation, civil engineering, and mechanical engineering. In addition to planning a new engineering education facility, building out the mechanical engineering focus area as a stand-alone BSME degree is the first step toward expansion of engineering education at WCU. The new program will continue to focus on the institution's mission of academic excellence, affordability, and access. The existing programs emphasize the engagement of students both inside and outside the classroom, focusing on project-based learning and

partnerships with companies that provide real-world, hands-on experiences for students. With the support of the recurring apportionment for engineering expansion, NC Promise tuition, and the location in the westernmost part of the state, this program will provide affordable opportunities for students in the region to pursue mechanical engineering.

2. Student Demand.

A study of enrollments at other UNC System institutions and conversations with their leadership suggest that programs across the state may be at capacity. WCU's proposed BSME program would provide an opportunity for in-state enrollment for qualified North Carolina resident students who may not be accepted at enrollment-constrained institutions with competitive admissions. Additionally, WCU offers students a location, environment, and hands-on focus that is an alternative to large and urban institutions. Furthermore, WCU's existing concentration in mechanical engineering serves as an indicator of demand. In the last 10 years, enrollment in the concentration has more than doubled from about 90 students in 2015 to 211 students in 2025.

Table 1. Other UNC System Enrolled for CIP 14.1901— Mechanical Engineering, Bachelor's degrees

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
N.C. A&T	428	411	439	451	422	427
NC State	988	1,016	1,012	1,004	1,037	1,116
UNCC	1,133	1,091	1,147	1,182	1,181	1,221

Table 2. Other UNC System Completions for CIP 14.1901— Mechanical Engineering, Bachelor's degrees

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23	AY2023-24
N.C. A&T	75	67	95	82	79	81
NC State	230	288	285	249	250	290
UNCC	211	198	213	175	213	197

Table 3. IPEDS Peer Institutions Completions for CIP 14.1901— Mechanical Engineering, Bachelor's degrees

Institution	AY2018-19	AY2019-20	AY2020-21	AY2021-22	AY2022-23
Central Washington University	0	0	0	0	0
Eastern Washington University	63	70	77	50	38
St. Cloud State University	52	42	36	34	32
The University of Tennessee- Chattanooga	64	70	65	54	51
University of Central Oklahoma	35	29	29	24	28
University of Colorado, Colorado Springs	90	119	96	80	86
University of North Florida	70	66	76	67	60
Western Illinois University	6	14	10	13	17
Western Kentucky University	50	50	50	46	33

3. Employment Opportunities for Graduates.

Graduates from the proposed BSME program will have direct employment opportunities in the mechanical engineering sector and allied occupations. According to the Bureau of Labor Statistics, industries with the highest concentration of employment include engine, turbine, and power transmission equipment manufacturing; machinery manufacturing; architectural, engineering and related services; and metalworking machinery manufacturing. The NC Department of Commerce projects an annual demand of 700 bachelor's-level mechanical engineers through 2030 with 50 of those in the Western North Carolina subzone counties. JobsEQ projects that after accounting for the known talent pipeline, there will be an annual *deficit* of 80 mechanical engineers in North Carolina and 93 within a three-hour drive time of WCU for the next 10 years. Lastly, there were over 1,500 job advertisements for BS-level mechanical engineering positions in North Carolina in the last year and over 2,700 postings within a three-hour drive time of WCU.

Table 4. Median Wage for SOC Codes Cross-walked to CIP 14.1901— Mechanical Engineering, Bachelor's degrees

Degree Level	Educational Level Requirement	SOC Count	Median Wage
Bachelor's	Bachelor's Degree	4	\$79,570

Table 5. Estimated Employment in North Carolina for SOC Codes Cross-walked to CIP Code: **14.1901** with a Matching Education Level Requirement

Education Level	Count of SOC	2021	2030	Net	Percent
Requirement	Codes		Estimate	Change	Change
Bachelor's Degree	4	21,538	23,393	1,855	8.6%

4. Impact on Access and Affordability.

Students enrolled in the proposed BSME will benefit from having their focus on mechanical engineering more transparently displayed on their transcript. Employers will also more easily recognize students' study of mechanical engineering concepts if their degree explicitly states a degree in mechanical engineering rather than a degree in a general engineering program.

Western Carolina University is not requesting any new program-specific fees or tuition differential for this program. The existing concentration has a program fee of \$100 per student per semester, and this same rate would be implemented for the proposed program. For a first-time, full-time student enrolled in the program, the total program fees would be \$800, assuming a four-year graduation rate.

Tuition and fees for 2025-26 full-time (12+ credit hour) are as follows:

Full-Time 2025-26 Undergraduate Tuition and Fees per Year (dollars)

Category	Resident	Nonresident
Tuition	1,000	5,000
Tuition Differential		
Mandatory Fees (Athletics, Student Activities, Health Services,	3,199	3,199
Educational & Technology, Campus Security, Debt Service, ASG)		
Special Fees	200	200

5. Return on Investment.

Western Carolina's average time to degree is 4.4 years. Using the above figures for tuition and fees, in-state student expenditures for tuition and fees equal \$31,658. The median income for this position five years out from graduation is \$79,570.

6. Expected Quality.

The proposed BSME program will utilize the established student learning outcomes from ABET. The initial ABET review using the Mechanical Engineering program specific criteria will occur in the year after the first term that students graduate from the program. Several current students enrolled in the existing mechanical engineering concentration of the general engineering degree are anticipated to transition to the proposed program immediately after it is established, which could result in graduates as early as December 2025. This timeline would allow for an initial ABET accreditation in the 2026-27 cycle. Since the proposed program so closely aligns with the existing concentration, which is ABET accredited, the proposed program will be well positioned to receive ABET accreditation.

7. Faculty Quality and Number.

Currently there are 14 faculty members who support the mechanical engineering concentration who would transition to support the proposed BSME program. This includes one fixed-term assistant professor of practice, seven assistant professors, two associate professors, three professors, and one distinguished professor. Given the intention to expand enrollment, WCU anticipates hiring additional faculty and support staff over the next four to five years including five tenure/tenure-track faculty, one fixed-term faculty, a lab manager, an administrative support associate, and an academic advisor. All current faculty in the program have terminal degrees, and that would be a requirement for future tenure/tenure-track candidates as well. The minimum criterion for fixed-term faculty and the lab manager position is a master's degree. Having well-qualified faculty, many with industry experience, serves students by providing a robust and rigorous educational foundation with real-life, hands-on applications.

8. Relevant Lower-level and Cognate Programs.

The School of Engineering and Technology, in which the proposed BSME program would be housed, recently developed an "Engineering Discovery Program," which is a holistic support program for engineering students at the earliest stages of their academic career. The suite of first-year engineering courses and academic advising aims to provide support structures and build community for engineering students. Additionally, like most engineering programs, there is a heavy reliance on foundational math and physics courses. The proposed BSME program will benefit from strong relationships between the College of Engineering and Technology and the College of Arts and Sciences as the engineering faculty collaborate with the math and physics faculty to strategically support anticipated enrollment growth. A portion of legislative funding

allocated for engineering expansion at WCU will be used to provide additional sections of courses in these crucial supporting disciplines.

9. Availability of Campus Resources (Library, Space, etc.).

In 2023, WCU received \$95.3 million for a new engineering building from the North Carolina General Assembly. The advance planning phase for the facility was completed in December 2024, and schematic design began in January 2025. The new engineering building is anticipated to open in fall 2028. Currently, the BS Engineering program is housed in the Belk building and Center for Applied Technologies building. These facilities are adequate for the current enrollment and will support the initial expected enrollment growth in the proposed program. Additional capacity will be provided with the new building. During the most recent accreditation visit, ABET did not find any shortcomings with the existing facilities. Our current library holdings are also more than adequate for supporting the instructional and research needs of the proposed program.

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

Three other UNC System institutions offer a bachelor's degree in mechanical engineering: NC State University, North Carolina Agricultural and Technical State University, and University of North Carolina at Charlotte. All offer programs in an on-campus modality.

11. Potential for Unnecessary Duplication.

The proposed BSME program at WCU will add to the pool of high-quality workforce talent and is not anticipated to negatively impact the enrollment in similar programs at the other UNC System institutions. Instead, housed at the westernmost institution in North Carolina, the proposed BSME program will add capacity to the UNC System by attracting students that would instead attend a nearby out-of-state institution or pursue other career options.

12. Feasibility of Collaborative Program.

Besides expanding the pool of workforce talent needed by the region and state, the proposed program will expand the pool of domestic undergraduates that are available for graduate study at UNC System Ph.D. engineering programs (NC State, N.C. A&T, and UNC Charlotte). All have strong needs for a well-prepared pool of bachelor's-level graduates available for graduate study. WCU has discussed the concept of establishing articulated pipelines for engineering students from WCU to those schools for graduate study.

III. Summary of Review Processes

1. Campus Review Process and Feedback.

The proposed program was reviewed and fully supported at various stages of preparation by the following individuals, groups, and shared governance bodies at WCU: Provost Council, School Curriculum Committee, school director, college dean, Academic Policy and Review Council, Faculty Senate, chief financial officer, vice chancellor for Academic Affairs, and chancellor.

2. UNC System Office Review Process and Feedback. Throughout the review process, Western Carolina 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 approves Western Carolina University's request to establish the Bachelor of Science (BSME) in Mechanical Engineering (CIP 14.1901) effective fall 2025.

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

East Carolina University Master of Arts in Education in Art Education (K-12) (MAED) (CIP 13.1302)

Overview: The Master of Arts in Education in Art Education (K-12) (13.1302) at East Carolina University will be discontinued effective spring 2025. This request to discontinue the degree program has been reviewed by the appropriate institutional committees and approved by the appropriate academic authority(ies).

The request to discontinue the Master of Arts in Education in Art Education (K-12) is due to low productivity. No faculty or staff members will be affected by the discontinuation of the program. Individualized plans of study have been developed for students enrolled in the program. Students who maintain satisfactory academic progress are anticipated to complete all program requirements by spring 2026.

Recommendation: It is recommended that the Board of Governors approve East Carolina University's request to discontinue the delivery of the Master of Arts in Education in Art Education (K-12) (13.1302) effective spring 2025.

Master of Arts in Health Education (MA) (CIP 51.2207)

Overview: The Master of Arts in Health Education (51.2207) at East Carolina University will be discontinued effective spring 2025. This request to discontinue the degree program has been reviewed by the appropriate institutional committees and approved by the appropriate academic authority(ies).

The request to discontinue the Master of Arts in Health Education is due to low student enrollment. No faculty or staff members will be affected by the discontinuation of the program. Individualized plans of study have been developed for students enrolled in the program. Students who maintain satisfactory academic progress are anticipated to complete all program requirements by spring 2027.

Recommendation: It is recommended that the Board of Governors approve East Carolina University's request to discontinue the delivery of the Master of Arts in Health Education (51.2207) effective spring 2025.

University of North Carolina Asheville/University of North Carolina at Chapel Hill Master of Public Health (MPH) (CIP 51.2201)

Overview: The Master of Public Health (51.2201) at the University of North Carolina Asheville and University of North Carolina at Chapel Hill will be discontinued effective spring 2025. This request to discontinue the joint degree program has been reviewed by the appropriate institutional committees and approved by the appropriate academic authority(ies).

The request to discontinue the Master of Public Health is due to low student enrollments. No faculty or staff members will be dismissed because of this change. All have been reassigned or returned to their home departments. Individualized plans of study have been developed for students enrolled in the

program. Students who make appropriate progress will be able to complete the program, with the majority finishing by spring 2026.

Recommendation: It is recommended that the Board of Governors approve the University of North Carolina Asheville and University of North Carolina at Chapel Hill's request to discontinue the delivery of the joint Master of Public Health (51.2201) effective spring 2025.

<u>University of North Carolina at Charlotte</u> Master of Education in Elementary Education (MEd) (CIP 13.1202)

Overview: The Master of Education in Elementary Education (13.1202) at the University of North Carolina at Charlotte will be discontinued and consolidated effective fall 2025. This request to discontinue a degree program has been reviewed by the appropriate institutional committees and approved by the appropriate academic authority(ies).

The Master of Education in Elementary Education will be discontinued and consolidated into the Master of Education in Curriculum and Instruction (13.0301). The discontinuation and consolidation will expand the candidate pool and improve graduates' marketability. No faculty or staff members will be affected by the discontinuation and consolidation of the program. Enrolled students were given the option to either transition to the consolidated program or remain in their current one. All students have chosen to remain in their current program and have received plans of study for completion.

Recommendation: It is recommended that the Board of Governors approve the University of North Carolina at Charlotte's request to discontinue and consolidate the delivery of the Master of Education in Elementary Education (13.1202) effective fall 2025.