CALL TO ORDER
Stan Kelly, Chair

ROLL CALL
Stan Kelly, Chair

READING OF STATE GOVERNMENT ETHICS ACT CONFLICT OF INTEREST STATEMENT
Stan Kelly, Chair

1. CONSENT AGENDA

   A. Approval of April 19, 2018 Minutes (open & closed session) 7.1A
   B. Request to Continue Centers/Institutes 7.1B
      a. Center for Integrated Pest Management (CIPM)
      b. State Climate Office of NC (SCONC)
      c. General H. Hugh Shelton Leadership Center (SLC)
   C. Designation of Time Limited Option for Distinguished Professorships 7.1C
   D. Conferral of Tenure Requests 7.4A

2. REQUESTED ACTION

   ✓ A. Revisions to POL 05.25.01 – Faculty Grievance and Non-Reappointment 7.2A
      Review Policy
      Presenter: Warwick Arden, Executive Vice Chancellor and Provost
      Rationale: Adjusted requirements for the grievance / review committee membership to account for colleges that appoint faculty only on non-tenure track contracts.

   ✓ B. Revisions to POL 04.25.05 – Equal Opportunity, Non-Discrimination and 7.2B
      Affirmative Action Policy
      Presenter: Sheri Schwab, Interim Vice Provost, Institutional Equity and Diversity
      Rationale: Revisions include technical corrections and clarification edits.

   ✓ C. Revisions to POL 11.35.01 – Code of Student Conduct 7.2C
      Presenter: Mike Mullen, Vice Chancellor and Dean, Academic and Student Affairs
      Rationale: Updates to comply with EEO policy, technical corrections and clarification.

Denotes full Board approval required
D. Revisions to POL 05.15.01- Employees Exempt from the State Human Resources Act (EHRA) Policy
Presenter: Marie Williams, Associate Vice Chancellor for Human Resources
Rationale: At the Chancellor’s discretion, two edits are being recommended for Board of Trustees approval regarding method of discharge for cause notification (Section 4.3), and the transfer of leave from other institutions (Section 8.2.2).

E. Department of Athletics Proposed Bonus Structures
Presenter: Deborah Yow, Director of Athletics
Rationale: Requires approval per Non-Salary and Deferred Compensation Policy 05.15.03.
   a. Softball
   b. Rifle

3. INFORMATIONAL REPORT

A. Academic Programs Update
Presenter: Warwick Arden, Executive Vice Chancellor and Provost
New Certificate Programs
   a. Certificate in Global Health
   b. Online Graduate Certificate in Biology for Educators
   c. Graduate Certificate in Tax Analytics and Technology
   d. Graduate Certificate in Mathematics Teaching and Learning

4. CLOSED SESSION

A. Personnel Matters

5. RECONVENE OPEN SESSION

6. ADJOURN

Denotes full Board approval required
The University Affairs Committee of the Board of Trustees of North Carolina State University met April 19, 2018 in the Winslow Hall Conference Room.

Members Present: Stan Kelly, Committee Chair
Jackie Gonzalez
Ann Goodnight
Wendell Murphy
David Nimocks
Ed Weisiger, Jr.
Jimmy Clark, Board Chair

Chair Kelly called the meeting to order at 3:07 p.m. He called roll and certified that a quorum was present.

All members of the Committee were reminded of their duty to avoid conflicts of interest and appearances of conflicts of interest under the State Government Ethics Act. It was inquired as to whether there were any known conflicts of interest or appearances of conflict with respect to any matters coming before the Committee at this meeting. There being none, the meeting continued.

Consent Agenda
A motion was made by Mrs. Goodnight to approve the consent agenda items which included approval of minutes, designation of a time limited option for a distinguished professorship, and conferral of tenure to faculty members who were reviewed during the annual campus Reappointment, Promotion and Tenure process. Mr. Weisiger seconded the motion. The motion carried.

Requested Action
Ms. Marie Williams, Associate Vice Chancellor for Human Resources, reviewed NC State’s Annual Human Resources Compliance Report for Fiscal Year 2016-17. The report, previously called the “Annual Management Flexibility report”, is a requirement under UNC Policy and is divided into seven parts. The first four parts are specific to the Board of Trustees’ Management Flexibility Delegation and require Board approval. They include SAAO Tier I non-salary compensation and salary range information; conferral of tenure; institutional policies pertaining to supplemental pay, interim appointments and secondary appointments; and EHRA IRPS position actions. Mrs. Goodnight made a motion, seconded by Mr. Murphy, to approve the 2016-2017 report. The motion carried.

Ms. Williams continued by presenting the proposed salary ranges for SAAO Tier II positions for Fiscal Year 2018-19. She explained the purpose is to establish competitive ranges based on current market data to allow the university to attract and retain highly qualified executive talent. She reviewed the methodology for establishing the ranges and answered questions. Mr. Weisiger made a motion, seconded by Mrs. Goodnight, to approve the salary ranges. The motion carried.

Director of Athletics Deborah Yow discussed revisions to the bonus structure for football staff. Academic bonus categories have been updated to reflect the terms of Coach Doeren’s new contract, but in lesser amounts. Competitive bonuses remain unchanged. Mr. Murphy moved to approve the revised bonus structure. Mrs. Goodnight seconded the motion. The motion carried.
Informational Reports

Ms. Krista Ringler, Director of Scholarships and Financial Aid, provided an annual report on the list of recognized entities awarding full scholarships to undergraduates and the number of students receiving full scholarships from each entity. Per North Carolina General Statute, students who receive full scholarships from the list of recognized entities are considered residents of North Carolina and will receive the resident tuition benefit. There are 62 new and continuing students benefitting from this provision, including 53 Park Scholars.

Next, Dr. Louis Hunt, Senior Vice Provost and University Registrar, gave an annual report on the special consideration process of undergraduate admissions and the performance of students previously admitted through that process. He explained the purpose of the process is to provide a mechanism to admit students with exceptional talents in areas important to the university community. The overriding criterion in all admissions decisions is the potential for academic success. Although 6-year graduation rates of students admitted through this process are lower and fluctuate more than those of the overall student population, those numbers are heavily affected by the small number of students admitted through this process. The process is continuously monitored, but no changes are planned for the immediate future. Applicants admitted through this process have graduated in a variety of majors, including Engineering.

Chancellor Woodson shared that Marian Wright Edelman will give the May commencement address and receive an honorary degree. Mrs. Edelman is founder and president of the Children’s Defense Fund and a graduate of Spelman College and Yale Law School. She was the first black woman admitted to the Mississippi Bar. Temple Grandin, a pioneer in improving farm animal health and welfare, will also receive an honorary degree during the ceremony.

Chair of the Faculty Dr. Carolyn Bird highlighted recent topics discussed in the Faculty Senate which included an update on UNC Faculty Assembly discussions; an update from University Development/Advancement; and information about Transportation changes coming to campus. Academic Integrity in a Technology-Rich Environment was the topic of the March 20, 2018 General Faculty Meeting. A panel of experts addressed three perspectives: academic integrity, faculty and technology. About 65 people attended the meeting in person and another eight via webcast. Dr. Bird also provided an update on the Faculty Senate elections.

Staff Senate Chair Cathi Phillips Dunnagan delivered the Staff senate report. She began by noting elections took place April 4-18, 2018 and there were nominees for all 60 available seats. The Staff Senate has several issues under review including: the Mobile C Device Allowance policy to include SHRA and EHRA non-exempt employees; a Youth Programs Coordinator to monitor youth programs at the university; and 2018 parking changes. The Staff Senate has supported several university community events including the Wellness Fair and Dancing Around the World, an event to celebrate our diverse campus. Noting that this is her last committee report as Staff Senate Chair, Chair Kelly thanked Ms. Dunnagan for her service and for engaging with the committee throughout the year.

In his update, Provost Arden informed the committee of seven distinguished professorship appointments that have been awarded during the last year:

- Natasha Olby, Professor of Neurology and Neurosurgery in the College of Veterinary Medicine, was awarded the Dr. Kady M. Gjessing and Rahna M. Davidson Distinguished Chair in Gerontology
- Julie Swann, Head of the Fitts Department of Industrial and Systems Engineering, was awarded the A. Doug Allison Distinguished Professorship
- Ola Harrysson, Professor in the Fitts Department of Industrial and Systems Engineering, was awarded the Edward P. Fitts Distinguished Professorship
- Jean Goodwin, Professor in the Department of Communication, has been named the SAS Institute Distinguished Professor of Rhetoric and Technical Communication
- Russell King, Professor in the Fitts Department of Industrial and Systems Engineering, was named the Henry Armfield Foscue Distinguished Professor
- Harald Ade, Professor of Physics in the College of Sciences, was named as a Goodnight Innovation Distinguished Professor
- Edward B. Breitschwerdt, Professor of Medicine and Infectious Diseases in the College of Veterinary Medicine, was awarded the Melanie S. Steele Distinguished Professorship in Medicine
The Provost also reported that in accordance with the UNC Policy on the Employment of Related Persons (Anti-Nepotism Policy), NC State did not have any reported employees out of compliance with the policy for calendar year 2017.

**Topic of Interest/Committee Discussion**
Senior Vice Provost for Academic Outreach and Entrepreneurship Tom Miller provided an overview on university-level entrepreneurship initiatives, including NC State Entrepreneurship, which serves as a hub for programs across campus, the Wolfpack Investor Network and the Alumni Entrepreneurs Network. Dr. Miller also shared recent accolades that NC State has received, such as being ranked the #19 undergraduate entrepreneurship program by The Princeton Review and *Entrepreneur* magazine.

**Closed Session**
At 4:03 p.m. a motion was made by Mrs. Goodnight and seconded by Mr. Murphy, to go into closed session to prevent the premature disclosure of an honorary degree or award; to establish the amount of compensation and other materials terms of an employment contract or proposed employment contract; and to consider the qualifications, competence, performance, character, fitness, conditions of appointment or conditions of initial employment of an employee or prospective employee. The motion carried.

**Reconvene in Open Session**
After coming out of closed session, Chair Kelly announced the meeting in open session.

Mr. Murphy moved to approve the personnel items discussed in Closed Session related to the approval of two head coach employment agreements and one addendum to a head coach employment agreement. Mrs. Goodnight seconded the motion. The motion carried.

With no further business, Chair Kelly announced the meeting adjourned at 4:30 p.m.

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Stan Kelly, Chair
Review of the Center for Integrated Pest Management (CIPM) at North Carolina State University

December 12-13, 2017

Team members:
● James Stack, Kansas State University
● Keith Pitts, Marrone Bio Innovations
● Rubella Goswami, United States Department of Agriculture, National Institute for Food and Agriculture
● Amanda Crump, Western Integrated Pest Management Center
REPORT OF THE CENTER FOR INTEGRATED PEST MANAGEMENT (CIPM) FROM THE REVIEW TEAM

A summary and a set of recommendations from our review of the Center for Integrated Pest Management (CIPM) at North Carolina State University (NCSU) follow. The review team applauds CIPM for their work in pest informatics and modeling, their collaborative work with the United States Department of Agriculture’s Animal and Plant Health Inspection Service (USDA-APHIS or APHIS) to protect American agriculture from pests, and their work in state, regional, and national integrated pest management research, extension and coordination programs. The center has been quite successful in securing funding and due in part to their success, CIPM has had rapid growth in both funding and personnel in recent years; more effective management of that growth will be key to future success. One expressed goal of CIPM is to provide national leadership in IPM, but their plans to achieve this goal are not clear at this point. The Center has initiated efforts to increase visibility and integration with NCSU as well as with state activities in IPM, such as stronger association with the Southern IPM center and providing leadership for the Extension Implementation Program. Collaborators and the community served appear to be very satisfied with the services provided by CIPM. These efforts and advances are commendable and shed positive light on activities of the Center. However, the review team was of the opinion that to achieve sustainability and long term success of the Center, certain critical areas need to be addressed.

The following set of observations, concerns and recommendations coalesce around four major areas: 1) reframing the core identity of CIPM, 2) adoption of strategies for managing growth 3) development of a comprehensive communications and evaluation plan, and 4) concrete steps to diversify funding sources.

1. Reframing the Core Identity and Culture of CIPM

Without a clear identity, it will be difficult for CIPM to communicate effectively with potential partners and stakeholders as well as to recruit collaborators. The review team sensed a disconnect among the CIPM team about their Mission, Vision and Identity. The work of CIPM was presented as a set of projects rather than a clear program with activities that lead to one goal. In this way, it feels like the projects drive the program and not the other way around. The team has conducted a strategic planning activity and this should be praised. However, the review team recommends that CIPM revisit their proposed Mission, Vision, Brand Statement, Values and Frontiers. As they are currently written, the new goals and frontiers are difficult to measure and still read like a set of projects driving a program. Creating an overall program Theory of Change or overall program Logical Framework may position CIPM better for the future and help them reframe their core identity and develop a culture around the same mission. CIPM has assembled a strong core of expertise and very marketable skill sets; however, a more focused mission and a clearer vision will be needed for CIPM to be greater than the sum of its parts.
A few key points that came to the forefront are as follows:

**Cohesiveness of the current structure and the role CIPM in the university:** The review team struggled to understand the CIPM organizational chart, as the current “baskets” of expertise housed within the CIPM, (1) safeguarding mission support for USDA-APHIS, (2) administrative support for internal and external IPM and safeguarding projects and (3) the headquarters of the Southern Region IPM Center, largely appear to function as independent (non-integrated) entities within the CIPM. Although the Southern IPM Center is embedded within the organizational chart, there are actually no lines connecting it to CIPM. CIPM should investigate how the other three Regional IPM Centers are situated within their respective universities and develop a similar way to integrate the Southern IPM Center into CIPM without alienating other regional universities or diluting the regional nature of the Southern IPM Center.

Ties to the University and College of Agriculture and Life Sciences (CALS) do not appear to be strong at this juncture, which is a missed opportunity for both the CIPM and the University, particularly considering some unique, innovative and entrepreneurial aspects of the CIPM that will be discussed in this evaluation. Considering the somewhat “stateless” status of the CIPM, leadership and staff at the Center AND the leadership within CALS need to engage in a collective effort to better define the mission of the CIPM and to assist in better integrating the Center into University life. With more than $33 million in funding secured over the past 5 years, CIPM is clearly a profit center for NCSU and CALS, but resource investment by the University is minimal, reportedly less than $15,000/year in addition to two part-time faculty committed to overseeing the CIPM.

CIPM needs to aggressively pursue more research collaborations with NCSU faculty (these are possible with several departments, but a few are strategic, e.g., Entomology & Plant Pathology, Horticulture, statistics). This will garner internal support within the college and perhaps lessen the dependence on APHIS funding. It will increase the visibility and raise the stature of CIPM within the college, making it more likely to be approached to be part of new initiatives currently being started. Efforts to support departmental seminars and to co-sponsor seminars will help with on-campus familiarity, and informal discussions can be productive. Additionally, NCSU and CALS need to recognize that the work in APHIS might not be publishable so they will have to find a way to reward the PIs based on contribution to the Mission (service).

**Reliance on APHIS:** The vast majority of CIPM funding has been derived from the substantial, but unique, relationship that the CIPM has established over recent years with USDA-APHIS. The information provided to the review panel is indicative of how fully the relationship with APHIS defines the identity of the CIPM. While the CIPM mission statement and vision expound on a holistic connection with Integrated Pest Management, the preponderance of achievements presented to the panel were largely a listing of (important and critical) projects completed for USDA-APHIS. An important next step for the future of CIPM and CALS will be how to build upon
the impressive skills and capabilities that CIPM has developed as a service provider to USDA-APHIS and frame a broader landscape of services, stakeholders and customers.

Tapping into multi-disciplinary opportunities that exist within the NCSU and RTP communities, USDA-APHIS has developed a close relationship with the CIPM to develop, maintain and innovate forecasting and predictive modeling tools that serve to safeguard US agriculture and the environment against threatening non-native, invasive species. The evolution of this relationship appears to be driven by critical needs for both entities: (1) the need of the CIPM to attract new sources of funding after NSF and USDA IPM funding sources declined or were eliminated, and (2) the need of USDA-APHIS to build more robust forecasting and risk assessment capabilities for safeguarding US agricultural and environmental resources at a time when government hiring freezes have become the norm. CIPM needs to transition from a service-provider to a partner with APHIS to help shape the agenda for APHIS and to offer novel solutions to disease forecasting and risk modeling.

These very same skills that provide so much value to APHIS will be of value to researchers in other fields. CIPM needs to become co-PIs and collaborators with a wider array of scientists, perhaps starting at NCSU.

**Potential limitations due to nature of current work:** This relationship, while lucrative for CIPM and CALS and important for the US Government, has largely absorbed the focus and operations of the CIPM. Given that many CIPM staff are neither full employees of the Federal Government nor full employees of NCSU-CALS, cultural identity and institutional connections for the organization are not well-defined or well-established. This can be a source of frustration for a committed team of scientists, who by all counts are managing a heavy workload while developing valuable tools for USDA and US agriculture, largely in anonymity, due to the sensitive nature of the information that the CIPM compiles and analyzes for USDA-APHIS. The sensitive nature of the USDA-APHIS mission supported through the efforts and expertise of NCIPM staff also presents challenges to the typical measure of success for academia, publications and instructional opportunities for students.

**Changing circumstances for APHIS:** After years of co-location and office-sharing of CIPM and USDA-APHIS staff, USDA-APHIS has taken conscious steps to build a “firewall” between CIPM and USDA-APHIS staff, perhaps due to the increasingly sensitive nature of some of the work conducted by the APHIS programmatic staff at the Century Campus. Today, while the offices share a building, USDA-APHIS and CIPM no longer share office space, which limits the day-to-day interactions that many CIPM staff identified as a valued, collaborative aspect to the operation and culture of the CIPM. The imminent relocation of the APHIS unit to a different facility could potentially affect the relationship and functioning of the unit further in the very near future.

In discussions with the review panel, USDA-APHIS mentioned that the relationship with CIPM and NCSU will continue to evolve as government funding and priority setting also evolve, with some aspects of this evolution perhaps being challenging for the long-standing APHIS-CIPM
relationship, but other aspects being opportunities for the Center and for a broader sweep of CALS, NCSU and other universities. If CIPM and CALS leadership have not met recently to discuss the ongoing collaborative relationship and future plans for USDA-APHIS and the partnership with NCSU, the review panel recommends than CIPM and CALS leadership do so.

Targeting funding opportunities based on strengths developed through APHIS support: Both CIPM and USDA-APHIS staff openly acknowledge that the heavy reliance that both organizations have on each other pose significant risks should government policies, budgeting or priorities regarding safeguarding agricultural and natural resources shift. While much of the specific work jointly undertaken by CIPM on behalf of USDA-APHIS cannot be public, both CIPM and USDA-APHIS have awareness and ideas about how their unique relationship could be leveraged by the University to create instructional opportunities for students and business and funding opportunities for the CIPM, CALS and other centers and schools part of the NCSU family. Also, training and certification opportunities for state, national (USDA Foreign Agricultural Services, US Agency for International Development) and international agencies and organizations, as well as private corporations or farming organizations, that wish, or need, to build capacity around “big data” risk modeling, risk assessment, forecasting and scenario planning are a distinct possibility for CIPM and CALS. These capabilities are not only important for quarantine and safeguarding purposes, but also for real-time decisions on how to most efficiently and effectively produce food and fiber in a world that is undergoing significant and seemingly more difficult to predict ways, a key challenge and foundational purpose of integrated pest management.

Similarly, CIPM staff have some ideas and concepts about how the “backbone” of the tools, capabilities and expertise of the Center, largely developed through research and development work to support USDA-APHIS projects, could be leveraged to create value for potential customers, and the CIPM and NCSU, e.g. Socio-Ecological Pest Analytics and Eco-efficient Crop Protection. The opportunities presented by the relationship and capacity developed between NCIPM and USDA-APHIS easily could extend beyond CALS and, given thought and consideration, could extend beyond NCSU as well.

Initiatives in teaching: In the past, CIPM staff and USDA-APHIS staff have taught courses and/or seminars, based upon the research, work and mission associated with the collaboration between CIPM and USDA-APHIS. Reportedly, staff taught these courses/seminars as adjunct professors of CALS/NCSU. Undertaking a similar, new initiative should be discussed by CALS, CIPM and USDA-APHIS leadership and managers. Such an initiative would serve the academic and teaching mission of CALS and alleviate some of the perceived isolation of CIPM. Additionally, CIPM could consider other methods of involvement in teaching and interaction with the university such as providing internship opportunities for not only graduate students, but also undergraduates. This effort could potentially be supported by through competitive grants.

Defining specific areas where CIPM can provide national leadership: While the work currently conducted by CIPM is a key to national security and trade, and is a fundamental building block of integrated pest management, it is not exactly clear where CIPM provides national leadership.
on IPM. It seems that much of the research portfolio, and CIPM’s core strength, i.e. risk modeling, risk assessment and contingency planning, is either at the edges or only a component of what most consider traditional integrated pest management. More thoughtful consideration should be given to where CIPM and CALS strengths lie and what can be offered as national leadership in integrated pest management. CIPM and CALS should consider ways to leverage the highly unique capabilities and difficult-to-replicate relationship that the CIPM and NCSU has, or can have, with USDA-APHIS, which is considered, worldwide, to be a leader in developing and implementing safeguarding policies, practices and science to protect agriculture and natural resources.

As demonstrated by the organization chart provided to the review panel, all other integrated pest management-related work conducted by the CIPM currently is secondary to the Center’s work of supporting USDA-APHIS. CIPM efforts to diversify the “client base” of the Center have recently resulted in the efforts to build and market the proposal development and project management/project implementation capabilities of the Center. This effort appears to meet an “under-met” need within the Land Grant University system to provide “turnkey”-type leadership and administrative support for the development, implementation and evaluation of large, multi-stakeholder research projects, with recent, successful projects including the Integrated Pest Management Platform for Extension and Education and the “Growing New Roots: Grafting to Enhance Resiliency in U.S.” Vegetable Industries project, which involved 37 faculty across 10 research institutions across the United States. CIPM presents project management as a core strength. While this could potentially be a niche area where they provide service to the IPM community, it needs to be defined and presented in that light. Again, with CIPM almost fully dedicated to support USDA-APHIS-funded projects, and only two part-time faculty assigned to provide leadership to the Center, both CIPM and CALS need to evaluate whether this apparently under-met, or unmet, need is a growth opportunity for the CIPM and the University to enhance its capabilities and stature in setting and supporting adoption and growth in integrated pest management. Although a valuable asset, project management expertise alone is not IPM or science. CIPM should offer project management services only where they are engaged in the project as a full partner or co-PI. Otherwise, CIPM will expend a great deal of effort without generating the products/outputs associated with a scientific enterprise (e.g., publications, grants).

Limitations of time and resources: With current CIPM staff fully dedicated to delivering on APHIS sponsored projects, the key ingredient needed to analyze, develop and “pitch” new opportunities for the CIPM and NCSU are resources, including funding and staff, that can work with CIPM scientists and potential partners to develop both business development opportunities and instructional, training and/or certification curricula that fully exploit and, ultimately, enhance the strengths and capabilities of CIPM. This need could be enhanced significantly through recruiting and supporting a multi-disciplinary advisory board (or multiple advisory boards) with representation from the academic and public sectors, private industry and the NGO community. The review panel felt very strongly about the need for an advisory board. (The organizational chart presented to the review panel shows an advisory board, but the review panel was informed the advisory board was disbanded.)
2. Managing Growth

Since 2012, the CIPM has expanded from 37 personnel to 64 personnel, including growth from three principal investigators to ten. External funding has increased by more than 30% over a ten-year period. While this growth is impressive, the institution’s management infrastructure and operation has not effectively adapted to this rapid growth, which is typical for many organizations, particularly entrepreneurial, science-based organizations like CIPM.

As with any organization that has experienced such aggressive expansion, growing pains are evident and need to be addressed across the organization. Leadership from the top is critical in setting the tone and culture of the organization, but it is equally important to ensure line staff are encouraged and empowered to contribute to the management and direction of the CIPM. Review committee members felt many staff below senior management of the CIPM were eager to contribute to the vision and operation of the organization, but policies, infrastructure and communication were not in place to utilize the abundant skills and enthusiasm of the entire organization to define and implement the vision, mission and operation of the CIPM. The senior management at CALS and the CIPM should serve as the “compass” for this mid-sized organization, the senior management, including PIs, need to build, mentor and support the team of staff, representative of the organization from junior employees to mid-level managers that function as the “navigators” of the CIPM.

Managing growth is critical to the success of any organization. The review team feels that the key needs for the CIPM are:

- **Internal Communications**: Communications strategies and mechanisms need to evolve to reflect the size and complexity of the organization. CIPM needs to develop an internal communications plan effective for an organization of 70 plus people to ensure that all members feel connected. This can be accomplished through a variety of vehicles; e.g., a periodic newsletter, brief post-trip/meeting reports to keep the team up-to-date on progress and accomplishments in entrepreneurial scientific and business sectors.
- **Administrative structure**: Assistant Directors should assume more responsibility for the professional development, engagement and empowerment of junior staff.
- **Succession Planning**: CIPM faces the retirement of key senior staff within the next 1 to 2 years. CIPM leadership need to have a strategy and plan to manage the pending retirement of Center leaders, such as Karl Suiter, the most senior administrative support staff and senior researcher within CIPM. Leadership retirement will create a significant void in mentoring capacity. The CIPM needs to develop a succession plan for all key staff and ensure mentoring is sustained to develop new leadership candidates for the organization.
- **Staff Development**: All staff are heavily dedicated and consumed with delivering on APHIS-funded projects. Currently, the career advancement opportunities for CIPM staff are most often external to CIPM, with employment to USDA-APHIS being them most prominent path for advancement. CIPM management and CALS leadership need to
give consideration to providing educational and growth incentives and opportunities for staff that retain valued employees within the CIPM or the NCSU. Executing on recommendations to expand the scope of work and stakeholder relationships, as well as funding opportunities, could result in a broader range of opportunities and interests for CIPM employees and other CALS and NCSU staff.

Although it has 64 personnel, the CIPM staff and academic personnel seem disengaged from their campus counterparts. There are a couple of reasons for this - the proximity to campus and the confidentiality of their work with APHIS. The review team highly recommends that CIPM consider hiring an associate director or executive director to manage staff, manage projects and seek diverse funding.

3. Communication and Evaluation Plans and Strategies

As was mentioned above, the review team recommends that CIPM develop an internal communications strategy due to the size and complexity of the organization, their overall program, and the projects that support the program. In addition, the review team recommends that CIPM develop an external communication plan.

The only communications specialist in CIPM is assigned to the Southern IPM Center with limited ability to communicate on behalf of all of CIPM. Hiring more communications staff and developing a communications plan will build the case to external stakeholders, future funders, other state integrated pest management programs, and CALS that CIPM has unique services and can take on leadership in certain aspects of integrated pest management at a national scale. The review team consistently heard that CIPM is NCSU’s “best kept secret”. This is holding CIPM back from growing in the direction that they aim to grow in. The review team recommends that CALS and CIPM work together to develop a communications strategy. CALS leadership indicated to the review team that they would be willing to engage CALS communications experts to assist with communicating the successes of CIPM.

Evaluating and communicating successes goes hand-in-hand with creating a culture and an identity that could expand funding to CIPM and increase its recognition to potential funders; potential partners; state-, regional- and national-level extension and research academics; and the NC State colleges and departments. Throughout the document that was provided to us and the interviews that we conducted, the review team was struck by the depth of the activities and projects that CIPM does. However, many project objectives, the objectives of the new CIPM frontiers, and descriptions of CIPM activities are framed in a way that makes it difficult to measure the impact of CIPM. This is something that is also difficult for other state- and regional-level integrated pest management programs.

Many of the things that CIPM intends to measure are not measurable. And if they aren’t measurable, then they also can’t be communicable. We recommend that CIPM develop a comprehensive evaluation strategy and that CIPM hires additional evaluation consultants to help the leadership team frame their work in measurable ways. Professional (and perhaps, external) evaluators should be periodically consulted and post-hoc evaluations should be
conducted so that CIPM can accurately talk about their impact to national and international integrated pest management. The review team believes that this can be done in a way that doesn’t violate the confidential nature of relationship with USDA-APHIS or other funders.

The review team sensed a hesitancy to evaluate and talk about the impacts of the work that CIPM does with APHIS. While the review team understands the need to keep the data confidential, there are many aspects of the work with APHIS that could be evaluated and then later communicated. For example, CIPM worked with APHIS to develop risk-based sampling for inspecting cargo. A post-hoc evaluation of that sampling method could reveal impacts in controlling invasive species without divulging classified or confidential US strategies.

Finally, as was mentioned above, CIPM could benefit from the development of a theory of change or an overall logical framework for their entire program. An evaluation consultant could quickly work with CIPM to develop these program-wide frameworks. A theory of change can then be used to develop new project ideas, sell the program to potential funders, create cohesion and unity within CIPM staff, and can be utilized by communicators.

4. Strategies to Diversify Funding Sources

As was mentioned above, the review team recommends that CIPM diversify their funding sources. This would create a sense of staff stability and could position CIPM as a national leader in integrated pest management.

Stakeholders - industry, government, extension, research
Depending upon a single source (i.e., USDA-APHIS) for the majority of CIPM’s funding carries inherent risk with respect to stability and maintenance of expertise. Developing a strategy to diversify the funding portfolio is an opportunity to address several issues simultaneously, including better integration into the university system. Collaborative grant proposals, and ultimately funded projects, with NCSU faculty will achieve diversification as well as stronger ties to NCSU departments. Stronger collaborative relationships with the industries that support IPM and the stakeholders that benefit from IPM need to be developed and sustained. The review panel believes the development of an interlinked CIPM business and communications plan and the recruitment and sustained support of an advisory committee(s) are important steps in ensuring future growth beyond the current CIPM reliance on its relationship with APHIS.

Development of a Business Plan
CIPM has developed unique and useful capabilities and expertise that has value well beyond its currently predominant function as a risk assessment, risk modeling and risk forecasting vendor for the USDA. The review committee strongly urges the CALS and CIPM to tap into business development and entrepreneurial expertise that exists within NCSU or the broader UNC system to work with the CIPM, CALS, NCSU and potential external partners, e.g. private industry, other schools within the NCSU system and other government agencies, (US and international, concerned with safeguarding capacity), to develop a business plan, and a strategy to resource and to execute that plan, for building a broader base of customers and revenue opportunities for
CIPM and CALS. The review panel believes that the CIPM needs an individual with business development expertise dedicated full time to this effort.

Advisory Committees
To implement many of these recommendations, the review panel strongly recommends establishment of an internal advisory committee of CIPM and NCSU members to set and execute a plan to ensure that the CIPM is more integrated into CALS educational and instructional mission and that the CIPM serves as more than a revenue source for NCSU. Talent and expertise exists within the CIPM that is not being adequately used, directed or supported by CALS. Similarly, an advisory committee of external stakeholders, e.g. private industry, government agencies, think tanks/academia, grower groups and NGOs, should be impaneled with the express purpose of advising and assisting both CIPM and CALS on ways to more effectively and purposefully expand the reach of the Center’s work and to generate a more diverse revenue stream for both the CIPM and CALS.

Summary of recommendations
Recommendations from the review team are:

- Develop a cohesive vision and strategic plan for CIPM that integrates all the groups currently in the center. Create an overall program Theory of Change or overall program Logical Framework.

- Leadership and staff at CIPM AND the leadership within CALS engage in a collective effort to better define the mission of the CIPM and to assist in better integrating the Center into NCSU.

- Leverage resources developed with support from APHIS to develop training and certification opportunities for state, national and international agencies and organizations, as well as private corporations or farming organizations.

- Establish and maintain an External Advisory Committee (Crop Protection Industry, Food Industry, Funding agencies, Growers, Ag Input and Services Industry, Resource Managers, NGO) to advise on new initiatives and opportunities to diversify the work and funding stream for CIPM, based upon its core strengths.

- Consider and establish a management structure and culture that supports the current scope and size of the organization and guides new initiatives and policies that support further growth of both initiatives and staff at CIPM and promote better integration into the University community.

- Hire and fund full-time staff, supported by NCSU, to lead business development initiatives for the CIPM and to lead the development and maintenance of external and internal communication strategies and materials for CIPM.
● Consider hiring an individual or realigning responsibilities of existing staff to create the position of an Associate Director who will devote her/his full-time to managing the operations of the center, initiating collaborations and working towards the goals in the strategic plan.

● Develop an internal and external communications strategy and an evaluation plan.

● Establish and maintain regular communication between USDA-APHIS, CIPM and CALS leadership (and possibly other schools within the NCSU campus) to stay up-to-date on challenges and opportunities presented by the unique, collaborative relationship between USDA-APHIS and NCSU.

● Engage in teaching opportunities on campus and/or deliver seminars and make serious efforts to participate in new initiatives on campus.

● Initiate internal collaborations with the Southern Region IPM Center and NC Cooperative Extension.

● Break up the silos within CIPM and promote joint efforts involving groups with diverse expertise for integrated research, extension and training endeavors, and proposals.

● Pursue research collaborations within and beyond NCSU, and break the “best kept secret” identity. This will further stabilize against funding shocks that can occur when relying on a few sources.

● Explore funding options outside those currently targeted by members of CIPM. This could include connecting with the professional community in NCSU and elsewhere to become part of larger efforts that lead to multi-million dollar projects by contributing in areas such as modeling, project management and so on. Discuss with program leaders at funding agencies such as NIFA and NSF to explore potential opportunities in areas such as data science. Explore opportunities for undergraduate training grants (eg NIFA’s REEU, NSF’s REU), federal pre and post-doctoral fellowships and other such programs. Consider trainings for under-served populations as that may lead to additional sources of funding.
CIPM

Center for Integrated Pest Management

Response to External Review
Five-Year Period
(FY 2013–FY 2017)
I. Summary of CIPM Five Year Review Document

A. Background
The Center for Integrated Pest Management (CIPM) is a trans-college Center that synergistically leverages University, public, and private partnerships to advance food security and prevent or limit crop losses due to pests. The Center utilizes a 2.7 percent base-budget investment of state dollars to generate an additional $6.7 million in revenue per year for a total of $34,521,873 during the last five years (nearly all subject to facilities and administrative [F&A] charges), to advance the Land-Grant mission as well as CIPM’s mission. The Center is uniquely positioned nationally and globally to address critical and emerging pest management challenges that threaten U.S. and global agriculture systems. The Center has a strong and nationally incomparable partnership with the federal USDA-APHIS agency to protect the U.S. from invasive pest threats and to co-develop emergency responses and resiliency plans. CIPM is also a recognized leader in managing trans-disciplinary national teams that address national priorities in food security, crop production, and pest management.

The Center has a sum of ~one faculty FTE and personnel published thirty-seven peer reviewed journal articles, three book chapters, 106 scientific or technical reports and seventeen abstracts for a total of 163 publications during the last five years.

CIPM has also made it a priority to train students and professionals. In the last five years, CIPM directly provided forty undergrad training/employment experiences, “graduated” eight postdoctoral scholars, and equipped three visiting scholars from abroad. Additionally, CIPM enabled twenty-eight research scholars to achieve their next career step, and advanced skill sets and job opportunities for thirty-one temp research technicians/paraprofessionals. An astonishing 64 percent of forty-four post-graduate professionals that worked at CIPM secured a position in regulatory sciences, primarily with USDA-APHIS; the remainder secured academic, industry, or other positions. CIPM led a USDA-specialty crops grant with national impacts that trained four postdoctoral scholars, eighteen graduate students, and twelve undergraduate research experiences. Likewise, CIPM led a USDA-AFRI Food security grant that trained fifty-nine summer interns to date in IPM and across the United States.

The Center’s primary strength lies in the capacity to competently address the many facets food/crop security as impacted by pest threats, including discovering and documenting emerging issues (pest monitoring), pest prioritization, data gathering, innovative research, data analysis,
and designing outputs and outcomes useful to farmers, NGOs, government agencies, and other stakeholders. CIPM competently provides leadership and has impact at four measurable levels: internationally, nationally, regionally and at the state/university level. Center programs are interdisciplinary; they typically combine research, extension and education components, and are complementary across levels. CIPM’s self-study documented activity based on the last five years (2013-2017) and is structured as follows:

1) **International scale** where CIPM: a) manages, develops and deploys information systems that support critical objectives of the USDA, states and foreign cooperators to prevent introduction of invasive pests and b) provides crucial leadership to initiate or enhance international collaborations

2) **National scale** where CIPM: a) provides leadership to secure funding and works with partners to implement national IPM programs; b) designs and manages national databases of IPM programs, outcomes and products; c) leads national IPM research and extension programs and d) provides national leadership for IPM policy and goals

3) **Regional scale** where the Center secures federal competitive funds to support the Southern IPM Center (SIPMC) Partnership to advance IPM in the southern region

4) **State scale** where it: a) houses the state IPM coordinator and provides primary leadership to secure competitive funds through the Extension IPM program to limit crop losses and increase IPM adoption in NC; b) enables local leaders by training, engagement and generating funds

5) **Center scale** where it: a) promotes a culture of intra-center engagement and innovation b) enhances worksite pride and creates a culture of improvement with over 60 personnel.

II. **Summary of External Review**

A. **Process**

External review of CIPM was initiated in 2017 and the External Review Team visited the campus and Center December 12-13, 2017.

The review team had distinguished credentials, engaged CIPM and Center stakeholders very effectively, and developed a comprehensive report. Review team members included:

**Keith Pitts**
Chief Sustainability Officer; SVP, Regulatory and Government Affairs
Marrone Bio Innovations, Davis, CA

**Rubella S. Goswami**
National Program Leader; USDA-NIFA Division of Plant Systems-Protection, Washington DC

**Amanda Crump**
Director, Western Integrated Pest Management Center; University of CA, Davis, CA

**Jim Stack**
B. Summary of report

The review team identified core strengths of the Center, articulated a set of observations, concerns and recommendations, and assembled a summary of recommendations.

1. Center Strengths:
The review team applauds CIPM for their work in several areas listed below:
   - pest informatics and modeling
   - collaborative work with APHIS to protect American agriculture from pests
   - work in state, regional, and national integrated pest management research, extension and coordination programs
   - rapid growth in both funding and personnel in recent years
   - assembling a strong core of expertise and very marketable skill sets
   - CIPM staff have…ideas and concepts…to leverage APHIS work to create value for potential customers, the CIPM, and NC State
   - Expansion from thirty-seven personnel to sixty-four personnel, including growth from three principal investigators to ten since 2012. External funding has increased by more than 30 percent over a ten-year period.
   - heavily dedicated staff
   - CIPM has developed unique and useful capabilities and expertise that has value well beyond its currently predominant function as a risk assessment, risk modeling, and risk forecasting vendor for the USDA.
   - The depth and number of the activities and projects that CIPM manages.

2. Core Set of Observations, Concerns and Recommendations
The external review organized these into four core areas and brief major points (nearly verbatim) are featured here:

a) Reframing The Core Identity of CIPM
   - CIPM was presented as a set of projects; projects drive the program and not the other way around and an overall program Theory of Change or overall program Logical Framework would guide Center decisions.
   - Cohesiveness of the current structure and the role of CIPM in the University and ties to CALS do not appear to be strong at this juncture.
   - CIPM has a high reliance on USDA-APHIS.
   - CIPM has high capacity and expertise and could develop initiatives in teaching professionals and provide internship opportunities for not only graduate students, but also undergraduates.
• CIPM is a key to national security and trade, and it is a fundamental building block of integrated pest management, but it is not exactly clear where CIPM provides national leadership on IPM.
• CIPM has constraining limitations of time and resources.

b) Adoption of Strategies for Managing Growth

• As with any organization that has experienced such aggressive expansion, growing pains are evident and need to be addressed across the organization.
• Leadership from the top is critical in setting the tone and culture of the organization, but it is equally important to ensure line staff are encouraged and empowered to contribute to the management and direction of the CIPM.
• Managing growth is critical to the success of any organization and CIPM needs to develop internal communications consistent with its new size; distribute responsibilities of management among more leaders; develop successive planning with predicted future changes in leadership; and advance more opportunities for staff development.

c) Development of a Comprehensive Communications and Evaluation Plan

• The review team recommends that CALS and CIPM work together to develop an external communications strategy.
• Many of the things that CIPM intends to measure are not measurable; CIPM should develop a comprehensive evaluation strategy, and CIPM should hire additional evaluation consultants to help the leadership team frame their work in measurable ways. CIPM would benefit from the development of a theory of change or an overall logical framework for their entire program.
• While the review team understands the need to keep the data confidential, there are many aspects of the work with APHIS that could be evaluated and then later communicated.

d) Strategies to Diversify Funding Sources

• CIPM should diversify their funding sources. This would create a sense of staff stability and could position CIPM as a national leader in integrated pest management. Collaborative grant proposals, and ultimately funded projects, with NC State faculty will achieve diversification; relationships with industries that support IPM and the stakeholders that benefit from IPM need to be developed and sustained.
• Development of a Business Plan; The review committee strongly urges the CALS and CIPM to tap into business development and entrepreneurial expertise that exists within NC State or the broader UNC system to work with the CIPM, CALS, NC State, and potential external partners.
• The review panel believes that the CIPM needs an individual with business development expertise dedicated full time to this effort.
• CIPM should re-form an advisory committee of external stakeholders
3. Summary of Recommendations

In our response, we grouped the external review summary of recommendations into four actionable areas to guide CIPM plans. These summaries from the review panel and CIPM responses are combined below.

III. CIPM Response to Review

A. Develop a Strategic Plan

Panel Summary Points:

- Develop a cohesive vision and strategic plan for CIPM that integrates all the groups currently in the center. Create an overall program Theory of Change or overall program Logical Framework.
- Establish and maintain an External Advisory Committee (Crop Protection Industry, Food Industry, Funding agencies, Growers, Ag Input and Services Industry, Resource Managers, NGO) to advise on new initiatives and opportunities to diversify the work and funding stream for CIPM based upon its core strengths.
- Develop an internal and external communications strategy and an evaluation plan.

CIPM Response:

CIPM worked with leaders at NC State and developed a mission statement, vision statement, and core values as a foundation for our strategic planning process. CIPM recognizes that diversely funded projects, with most personnel fully funded by these specific projects, leads to challenges to communicate a cohesive overall mission and vision. CIPM will work with CALS to determine if a formal strategic plan, managed by external professionals, is the most effective mechanism and use of time and resources to further optimize a cohesive vision and plan of action. CIPM recognizes the value of an overall program Theory of Change or overall program Logical Framework and will work with CALS and NC State experts to secure resources to explore this recommendation.

CIPM agrees that a national advisory group of leaders could significantly leverage opportunities to advance CIPM capacity and impacts, and CIPM will work with CALS and external partners to pursue this recommendation.

CIPM acknowledges that with the rapid growth of the Center and ever changing opportunities that an enhanced internal and external communications strategy and an evaluation plan is of high value. CIPM has an evaluation specialist on staff who manages many evaluation plans for funded projects and can also potentially advise the Center to be more intentional in this area.

B. Better Integrate CIPM into the NC State Culture and other Universities

Panel Summary Points:
Leadership and staff at CIPM and the leadership within CALS engage in a collective effort to better define the mission of the CIPM and to assist in better integrating the Center into NC State.

Engage in teaching opportunities on campus and/or deliver seminars and make serious efforts to participate in new initiatives on campus.

Pursue research collaborations within and beyond NC State, and break the “best kept secret” identity. This will further stabilize against funding shocks that can occur when relying on a few sources.

CIPM Response:
CIPM has been highly intentional about enhancing NC State and CALS interactions and also welcomes pro-active members of the greater university community to seek out CIPM. For example, CIPM secures funds and works with the College of Natural Resources and the Center for Geospatial Analytics to optimize geospatial data into pest analytics. This relationship currently supports three postdocs and four PhD students. CIPM also works with the College of Sciences and the State Climate Office to advance capacity and scholarship in weather capture methodology. Additionally, CIPM taps into the College of Engineering and College of Design to hire multiple students with expertise in database development, programming, and design. Finally, CIPM is highly engaged with multiple faculty within the College of Agriculture and Life Sciences through several mechanisms including:

1) A state-focused grant worth ~ $272,995 per year that has engaged over twenty-six faculty, multiple cooperative extension agents, and many stakeholders to advance extension in IPM across the state and in multiple cropping systems.

2) CIPM leads a national USDA-Specialty Crops Research Initiative (SCRI) that secured three SCRI grants in Vegetable Grafting Systems. These monies engaged seven to eight faculty at NC State and resulted in training six PhD and three MS degrees at NC State (several in progress).

3) CIPM has proactively secured Center personnel for various NC State seminars, meetings, and other leadership/linkage events. Center members have served on several College and University initiatives, committees, review panels, or discussion events.

4) CIPM took primary leadership to develop a Memorandum of Agreement with the Chinese Academy of Agricultural Sciences (CAAS), and though the process is iterative, two funded PhD students will start in 2018 within CALS.

5) Through the Southern Region IPM program managed within CIPM, in the past three years, four faculty in horticulture science, entomology, and plant pathology have been funded $165,557 to advance their research or extension IPM programs.

CIPM recognizes that the Center’s capacity is underutilized by CALS, and the University as a whole. The Center acknowledges that all parties can work together to discover more areas of collaborative work to leverage Center and University capabilities. NC State is experiencing exciting opportunities: The vision of the Plant Sciences Initiative (PSI) is to be trans-disciplinary to solve tomorrow’s challenges in plant-based systems. CIPM is uniquely poised to play an active role in this emerging opportunity. The Chancellor has supported strategic Faculty Excellence Cluster Hires e.g. Emerging Plant Disease and Global Food Security. CIPM
envisions collaborative opportunities with these and other leading groups on campus. CIPM will seek out more relationships, discussions, and opportunities to enhance CIPM and University collaborations.

CIPM is not a faculty-driven Center and all personnel are fully funded or the majority are funded by grants. CIPM envisions the development of training programs in Regulatory Pest Sciences especially sponsored or fee-based programs. CIPM also engages undergrads, graduate students, and postdoctoral professionals in various aspects of the Center. CIPM is eager to develop graduate and/or undergraduate courses and participate in new initiatives. This is well within CIPM’s expertise and personnel would benefit (career wise) to be engaged in such course development and teaching. NC State, CALS, and CIPM would need to discuss internal or external financing mechanism to support teaching and other opportunities led by CIPM experts.

CIPM will continue to pursue research collaborations within and beyond NC State. CIPM currently leads and manages a large USDA-AFRI food security grant valued at ~$7 million and a large USDA-SCRI with current value of ~6.3 million. CIPM would enjoy unfolding mechanisms to enable faculty to self-identify as faculty affiliates and co-develop “big idea” collaborations with regional to international impacts.

C. Synergistically Advance Strengths and Capacity

Panel Summary Points:

- Leverage resources developed with support from APHIS to develop training and certification opportunities for state, national, and international agencies and organizations, as well as private corporations or farming organizations.
- Establish and maintain an External Advisory Committee (Crop Protection Industry, Food Industry, Funding agencies, Growers, Ag Input and Services Industry, Resource Managers, NGO) to advise on new initiatives and opportunities to diversify the work and funding stream for CIPM, based upon its core strengths.
- Establish and maintain regular communication between USDA-APHIS, CIPM and CALS leadership (and possibly other schools within the NC State campus) to stay up-to-date on challenges and opportunities presented by the unique, collaborative relationship between USDA-APHIS and NC State.
- Break up the silos within CIPM and promote joint efforts involving groups with diverse expertise for integrated research, extension and training endeavors, and proposals.
- Explore funding options outside those currently targeted by members of CIPM. This could include connecting with the professional community at NC State and elsewhere to become part of larger efforts leading to multi-million dollar projects by contributing in areas such as modeling, project management and others. Discuss with program leaders at funding agencies such as NIFA and NSF to explore potential opportunities in areas such as data science. Explore opportunities for undergraduate training grants (e.g. NIFA’s REEU, NSF’s REU), federal pre and post-doctoral fellowships, and other such programs. Consider trainings for under-served populations as that may lead to additional sources of funding.
CIPM Response:

CIPM agrees that it has tremendous scholarship and expertise that advances food security and pest analytics outcomes especially in cooperative work with USDA-APHIS. This can be further leveraged through focused discussions with APHIS and NC State (future) partners as well as state, national, and international stakeholders. One key mechanism to leverage capacity is to re-assembly a national advisory committee of experts to advise on new initiatives and opportunities that diversify the work and funding stream for CIPM. Each component of CIPM’s major foci of work are structured with external advisory teams, but the Center would benefit with an External Advisory Committee that envisions the entire current and future body of work of the Center.

CIPM could also function as an effective conduit to bring more scholarship embedded within faculty expertise that furthers the mission of APHIS and international partners to manage the grand challenge of invasive species that cause billions of dollars in damage to our agricultural and natural resources. CIPM has a strong history of being nimble, innovative, and flexible while leading funded ideas that deliver solutions to solve pest challenges.

CIPM is a recognized leader in assembling trans-disciplinary teams to address national food security and pest management projects. However, more opportunities with diverse partners is possible, and CIPM will always seek innovative, typically large scale, projects, that advance research and extension and/or training/teaching opportunities within IPM and food security.

D. Develop a Management Structure and Culture for the Future

Panel Summary Points:

- Consider and establish a management structure and culture that supports the current scope and size of the organization which guides new initiatives and policies that support further growth of both initiatives and staff at CIPM as well as promote better integration into the University community.
- Hire and fund full-time staff, supported by NC State, to lead business development initiatives and to lead the development and maintenance of external and internal communication strategies and materials for CIPM.
- Consider hiring an individual or realigning responsibilities of existing staff to create a position for an Associate Director who will devote all of his/her time to managing the operations of the center, initiating collaborations, and working towards the goals in the strategic plan.
- Initiate internal collaborations with the Southern Region IPM Center and NC Cooperative Extension.

CIPM Response:

CIPM recognizes it has grown rapidly in the past five years and enjoys the External Review Committees affirmation of the need for the Center to further develop personnel opportunities and advance CIPM impacts. CIPM has a core value of engagement. All employees were engaged in assembling the self-study especially the re-development of our mission, vision and branding statements (consistent with our existing Charter), and our shared core values. CIPM has also diversified leadership opportunities from three PIs to ten PIs and these leaders meet bimonthly to further guide CIPM plans. All of the personnel at CIPM participate in monthly staff meetings.
designed to advance opportunities for professional development, link with current and future partners, and teach each other about current projects and collaborative opportunities.

Center personnel working on specific projects self-assembled; identified leaders; assembled a written document, and orally presented their project details and how their efforts could link to other CIPM projects. This was a way to bridge CIPM staff to better serve our stakeholders and become more competitive for grants. The outcomes were highly productive: Over twenty project groups self-assembled and presented to the entire CIPM staff. The CIPM staff gained a deep appreciation for the depth and breadth of CIPM activities that make a clear societal impact with regard to pest management, food security, and outreach. This type of staff engagement will be further supported in the future.

More recently, funded projects resulted in hiring diverse project personnel with advanced skill levels. Limited natural interactions among personnel were a barrier to innovation, efficiency, and synergy. In the past year, CIPM developed the next level of communication, collaboration, and Center growth by forming several “Strategic Opportunity Planning Groups.” The goals of these groups are to: 1) Educate ourselves (CIPM) for workplace cohesion; 2) Enhance crosstalk to better serve stakeholders and be more competitive for large grants; and 3) Identify action items to enhance outcomes and outputs, including identifying people and resources. Examples of groups included: Professional Development, GIS systems, Writing and Advancing CIPM Publications, Database Design and Management, International IPM, Weather and Pest Modeling, Proposal Development, and Project Management. Each group developed a “portfolio” of ideas and plans, realistic actionable items, and core questions (barriers/opportunities) for all CIPM staff to discuss. These Groups are designed to enhance internal collaborations and should help address some of the External Review recommendations.

CIPM acknowledges the challenge to grow in areas or allocate personnel into responsibilities where no specific funding is available. CIPM would benefit from more influx of University and/or CALS support. The hiring of a Chief Operations Officer to lead business development initiatives as well as lead the development and maintenance of internal and external communication strategies for CIPM is an intriguing idea and worthy of discussion with the University and college leaders. Such leadership could enhance CIPM stability and capacity and provide a high Return on Investment (ROI) for the University.

IV. Acknowledgements

We thank the external reviewers for their time, expertise, and valuable feedback. We thank our many stakeholders at NC State and off-campus who participated in the review process. The CIPM Director is also very grateful for the depth and extent of work each CIPM staff member contributed to the process of “self-analysis”, “self-discovery”, and “self-determination.” Many people offered their expertise, time, and commitment during the review process. The Center highly enjoyed the leadership of Drs. Rhonda Sutton and DonnaMaria Vigil-King for their knowledge and very helpful leadership in organizing our retreats to develop a shared vision for the Center and assemble the self-study document. Thanks to Dr. Roger Crickenberger and Dr. Becky Boston and the College of Agriculture and Life Sciences for initiating, supporting, and co-managing the external review process. Finally, we are grateful to Dr. Jon Horowitz and Larisa Slark from the Office for Research, Innovation, and Economic Development for their expert leadership and guidance in this process.
April 25, 2018

Dr. Alan Rebar
Office of Research, Innovation and Economic Development
Campus Box 7003
Raleigh, NC 27695

Dear Dr. Rebar:

The Center for Integrated Pest Management (CIPM) was reviewed by an external review team December 12-13, 2017. CALS’ administrative team has reviewed the report along with other documents supplied by CIPM and I am requesting that CIPM be continued as a UNC-GA Center in CALS. Please consider the following summary information as well as the attached copy of CIPM’s self-study, the review team report, and CIPM’s response to the review in support of CALS’ recommendation.

Overview

The review process consisted of the following steps:

1. CIPM Director Frank Louws and relevant faculty and staff prepared a self-study document that presented achievements, funding, and other pertinent information covering the five years leading up to the review.
2. Members of the review team included Drs. Keith Pitts; Marrone Bio Innovations; Rubella S. Goswami, USDA-NIFA Division of Plant Systems-Protection, Washington DC; Amanda Crump, University of CA-Davis; and Jim Stack, Kansas State University. The team’s expertise encompasses the fields of crop protection ranging from plant pest biology and disease management to pesticide policy to crop production, pest informatics and plant biosecurity. The review team examined the self-study document and undertook a two-day review of the Center and its programs. During the review, the team had discussions with CIPM faculty, team leaders, and staff; members of the USDA APHIS/Center for Plant Health Science and Technology stakeholders; relevant NC State department heads and interdisciplinary Center Directors, collaborating faculty; external collaborators; and administrative teams from CALS and ORIED. Subsequently, they submitted their report, which was provided to CIPM for a response.
3. CIPM leadership provided their response to the review team’s report to CALS. After a thorough review of all of these documents by the CALS leadership team, representing research, extension and academic programs, the following summary is presented for your consideration.

Overall the review team’s findings were very favorable and strongly aligned with CALS leadership team’s own observations regarding CIPM’s achievements. In its summary statement, the review team applauded CIPM for their work in pest informatics and modeling, collaborative work with USDA APHIS to protect American agriculture from pests, rapid growth in funding and personnel, and their efforts to increase visibility and integration with NCSU as well as with state activities in IPM including stronger association with the Southern IPM Center and providing leadership for the Extension Implementation Program. All of which, the review team concluded are “commendable advances that shed positive light on the activities of the Center...” However, the review team did identify areas for potential improvement along with several specific recommendations to support the Center’s continued success. These recommendations as well as CIPM’s response to the review team’s report are discussed below.

Suggested areas of potential improvement from the review team:

1. **Reframing the core identity of CIPM.** A strong core of expertise and very marketable skill sets were seen as an asset for CIPM, but one that could be enhanced by presenting the Center as a unified
program under a single goal. The team viewed a more focused mission and clearer vision as ways for CIPM to establish a clear identity, communicate effectively with potential partners and stakeholders, recruit collaborators and be greater than the sum of its parts. Stronger ties to CALS would offer advantages for both the CIPM and the University through innovative and entrepreneurial aspects of CIPM. CIPM’s impressive funding of more than $33 million has been derived from the strong relationship it has established over recent years with USDA-APHIS in spite of minimal resource investment by the University. The review team recognized the sensitive nature of the information the CIPM compiles for USDA-APHIS, but articulated concern that this was such a large portion of the CIPM portfolio that it challenged integration of academic, publication and instructional opportunities.

2. **Adoption of strategies for managing growth.** Almost doubling of personnel to 64 people since 2012 and increasing contract and grant success by 30% over a ten-year period was deemed very impressive. However with the growth, the review team did not think that the CIPM management infrastructure and operations had adapted effectively. Although this is not unusual for entrepreneurial, science-based organizations like CIPM, several targets for better managing growth were noted: internal communications strategies, administrative structure to better empower junior staff, succession planning, staff development.

3. **Development of a comprehensive communications and evaluation plan.** The review team referred to CIPM as NCSU’s “best kept secret” and saw opportunities for evaluating and communicating successes as important to expand funding to CIPM and increase its recognition to potential funders and partners. The team felt that the current setup of CIPM projects doesn’t easily allow impact to be measured and thus communicated. They saw opportunities to balance the need to keep the data confidential with identifying aspects of the work, such as impacts of their methodology, that could be communicated to CIPM’s advantage without divulging classified or confidential US strategies.

4. **Concrete steps to diversify funding sources.** The team noted that CIPM has developed unique and useful capabilities and expertise that have value beyond its currently predominant function as a risk assessment, risk modeling and risk forecasting vendor for the USDA. They saw advantages in diversification of CIPM funding sources to create a sense of staff stability, lower risk, and better position CIPM’s standing as a national leader in integrated pest management.

**Specific recommendations from the review team**

1. Develop a cohesive vision and strategic plan for CIPM that integrates all the groups currently in the Center. Create an overall program Theory of Change or overall program Logical Framework.

2. Leadership and staff at CIPM and the leadership within CALS engage in a collective effort to better define the mission of the CIPM and to assist in better integrating the Center into NCSU.

3. Leverage resources developed with support from APHIS to develop training and certification opportunities for state, national and international agencies and organizations, as well as private corporations or farming organizations.

4. Establish and maintain an External Advisory Committee (crop protection industry, food industry, funding agencies, growers, ag input and services industry, resource managers, NGOs) to advise on new initiatives and opportunities to diversify the work and funding stream for CIPM, based upon its core strengths.

5. Consider and establish a management structure and culture that supports the current scope and size of the organization and guides new initiatives and policies that support further growth of both initiatives and staff at CIPM and promote better integration into the University community.

6. Hire and fund full-time staff, supported by NCSU, to lead business development initiatives for the CIPM and to lead the development and maintenance of external and internal communication strategies and materials for CIPM.

7. Consider hiring an individual or realigning responsibilities of existing staff to create the position of an Associate Director who will devote her/his full-time to managing the operations of the center, initiating collaborations and working towards the goals in the strategic plan.

8. Develop an internal and external communications strategy and an evaluation plan.
9. Establish and maintain regular communication between USDA-APHIS, CIPM and CALS leadership (and possibly other schools within the NCSU campus) to stay up-to-date on challenges and opportunities presented by the unique, collaborative relationship between USDA-APHIS and NCSU.

10. Engage in teaching opportunities on campus and/or deliver seminars and make serious efforts to participate in new initiatives on campus.

11. Initiate internal collaborations with the Southern Region IPM Center and NC Cooperative Extension.

12. Break up the silos within CIPM and promote joint efforts involving groups with diverse expertise for integrated research, extension and training endeavors, and proposals.

13. Pursue research collaborations within and beyond NCSU, and break the “best kept secret” identity. This will further stabilize against funding shocks that can occur when relying on a few sources.

14. Explore funding options outside those currently targeted by members of CIPM. This could include connecting with the professional community in NCSU and elsewhere to become part of larger efforts that lead to multi-million dollar projects by contributing in areas such as modeling, project management and so on. Discuss with program leaders at funding agencies such as NIFA and NSF potential opportunities in areas such as data science. Explore opportunities for undergraduate training grants (eg NIFA’s REEU, NSF’s REU), federal pre and post-doctoral fellowships and other such programs. Consider trainings for under-served populations as that may lead to additional sources of funding.

Summary of CIPM’s response to the review team’s report

I will not provide the Center’s response in detail for each of the items mentioned from the review team’s report. However, some broader summary statements from their response follow:

**The Center faculty and staff are committed to their goal of addressing food/crop security as impacted by pest threats.**—They have generated an approximate 37-fold return on a base budget investment of state dollars that equates to over $34M in the past five years through a close partnership with the federal USDA-APHIS and several large competitive specialty crops grants from USDA AFRI that include training both students and professionals. CIPM’s core focus spans discovering and documenting emerging issues (pest monitoring), pest prioritization, data gathering, innovative research, data analysis, and designing outputs and outcomes useful to farmers, NGOs, government agencies, and other stakeholders across scales from the university to international.

**Center faculty and team leaders understand the need for strategic planning.** The rapid growth of the center along with diversity of projects and funding streams has highlighted the need for optimizing a cohesive vision and plan of action. CIPM agrees this is an area for improvement and will work with CALS to explore establishing a national advisory board and developing communication strategies for external and internal stakeholders.

**Better integrate CIPM into the NC State Culture and synergistically advance capacity.** While there are always opportunities for new collaboration, CIPM is highly engaged with several colleges, departments, chancellor’s excellence faculty clusters and other centers at NC State and beyond. The financial structure of having almost all CIPM personnel funded through grants is different than that of faculty-driven centers. In spite of this inherent restriction on the time that can be devoted to new initiatives, CIPM personnel have served on several college and university initiatives, committees, review panels, or discussion events. CIPM will actively seek additional areas for collaborative work to leverage the Center capabilities in research and training as well as to grow associated faculty for developing innovative, large scale collaborations with regional to international impacts. With its strong history of being nimble, innovative, and flexible while leading funded ideas that deliver solutions to solve pest challenges, CIPM is well positioned to work with an External Advisory Committee of national experts who can advise on new initiatives and opportunities that diversify the work and funding stream for CIPM.

**Develop a management structure and culture for the future.** CIPM recognizes it has grown rapidly in the past five years and must actively work to maintain a core value of engagement. The depth and breadth of CIPM activities that make a clear societal impact with regard to pest management, food security, and outreach must be visible to be appreciated internally and externally. The Center has already expanded
leadership from three to ten PIs and will continue to find links and bridges across existing projects and new opportunities. New "Strategic Opportunity Planning Groups" have been established to enhance workplace cohesion, crosstalk, collaborations and competitiveness for large grants as well as to identify action items to improve outcomes and outputs from the center. CIPM acknowledges the challenge to grow in areas or allocate personnel into responsibilities where no specific funding is available and, like all centers, could can benefit from a modest level of institutional funding. Beyond that, the Center already has and expects to continue a successful effort to acquire significant sponsored research support. CIPM leadership also recognize the opportunities that might develop from the Plant Sciences Initiative, business development initiatives and development and maintenance of internal and external communications strategies. They and the college are committed to exploring these opportunities.

**CALS' recommendation**

Based on the productive history of CIPM, the observations and recommendations of the review team, and the responses from the Center and CALS leadership team, I strongly recommend continuation of the Center. It is an important part of our college's research, training and extension programs, and it will continue to provide relevant research-based information to a wide variety of stakeholders. It will also continue to play a productive role in NC State's government and private sector partnerships providing new tools and well-trained employees that will work in and benefit the industry for many years. The Center has been diligent in seeking ways to secure its financial future and will continue to seek new opportunities. CALS will support these efforts by providing assistance from our college communications and business development staff. The report of the review team and the Center's response to the review project a productive future for CIPM and its associated faculty and staff.

If you have questions regarding our request to continue the Center, feel free to contact me at your convenience.

Sincerely,

Richard Linton, Dean
College of Agriculture and Life Sciences

Cc: Steve Lommel
John Dole
Richard Bonanno
Tom Melton
David Monks
Rick Davis
Frank Louws
Loren Fisher
John Horowitz
Larisa Stark
MEMORANDUM

TO: W. Randolph Woodson
   Chancellor
   NC State University

FROM: Alan H. Rebar
       Vice Chancellor for Research, Innovation and Economic Development
       NC State University

SUBJECT: Recommendation to continue the Center for Integrated Pest Management (CIPM) under Regulation 10.10.04

DATE: May 9, 2018

In accordance with Regulation 10.10.04, the Office of Research, Innovation and Economic Development completed a Periodic review of the Center for Integrated Pest Management (CIPM) for the period 2013-2017.

The Report delivered by the Review Committee strongly supports continuation of the Center, and applauds the Center’s efforts to protect American agriculture from invasive pests, as well as the Center’s participation in state, regional, and national integrated pest management research, extension and coordination programs.

The Report includes a number of recommendations, including the initiation of a strategic planning process, a review of the current organizational structure of the Center, and development of business and communication strategies that will position the Center for the future. The recommendations of the Review Committee were accepted by the College of Agriculture and Life Sciences, and the College requests continuance of the Center.

The Office of Research, Innovation and Economic Development and the Provost endorse the request to continue CIPM as a university Center as sanctioned by the Board of Trustees, and I request your approval of this recommendation.

AHR/mh

cc: Richard Linton, Dean, College of Agriculture and Life Sciences
    Frank Louws, Director, CIPM
    Mladen Vouk, Associate Vice Chancellor, Research Development
    Jonathan Horowitz, Assistant Vice Chancellor, Research Administration
    Larisa Slark, Senior Administrative Coordinator – Centers and Institutes
MEMORANDUM

TO: Alan H. Rebar  
Vice Chancellor for Research, Innovation and Economic Development

FROM: W. Randolph Woodson  
Chancellor

SUBJECT: Recommendation to continue the Center for Integrated Pest Management (CIPM) under Regulation 10.10.04

DATE: May 10, 2018

In response to your Memorandum dated May 9, 2018, authorization is hereby granted to forward the request to continue the Center for Integrated Pest Management (CIPM) to the Board of Trustees for approval.

WRW/mh

cc: Richard Linton, Dean, College of Agriculture and Life Sciences  
Frank Louws, Director, CIPM  
Mladen Vouk, Associate Vice Chancellor, Research Development  
Jonathan Horowitz, Assistant Vice Chancellor, Research Administration  
Larisa Slark, Senior Administrative Coordinator – Centers and Institutes
Five-Year External Review of the
North Carolina State Climatology Office

On-Site Visit: January 30, 2018
Report Completion: March 14, 2018

Review Team:
Laura Edwards, South Dakota State Climatologist
Hope Mizzell, South Carolina State Climatologist
The State Climate Office of North Carolina (SCONC) was established as a Public Service Center in 1998 by the Board of Governors of the University of North Carolina and reports through the College of Sciences at North Carolina State University (NCSU). All chartered Centers are required to undergo a comprehensive review on a five-year cycle. The five year review of the SCONC was conducted primarily through an on-site visit by a two-person external site review team (SRT). The SRT included Laura Edwards, the State Climatologist from South Dakota and Hope Mizzell, the State Climatologist from South Carolina. The on-site review was conducted on January 30, 2018 at the SCONC office on the campus of NCSU. The on-site review consisted of a series of presentations, structured interviews, partner interviews, and informal dialogues between the members of the SCONC and the SRT. To further address competencies and efficiencies, six separate informal phone interviews with SCONC staff were conducted by the SRT.

Prior to the on-site review, a report of Center activities over the past five years was provided to the SRT along with a set of questions that were to be addressed during the review. The SRT observations and evaluation of the SCONC will include three primary review components:

- **Climate Office Operations**: Measure the overall health of the SCONC with emphasis on management and operations, finances, and planning processes.
- **Institutional Coordination**: Assess partnerships and collaboration within North Carolina State University and UNC system departments, units, and individuals. Identify institutional barriers and/or opportunities for SCONC growth or more effective operations.
- **Partner/Stakeholder Capacity**: Appraise the effectiveness of the SCONC in working with partner organizations beyond the NCSU Institution.

**Climate Office Operations**

The office evaluation component measures the overall health of the SCONC as an institution, with regard to management and operations (e.g., professional staffing, student staffing, physical assets, and IT capacity), finances, and planning processes (e.g., strategic plans and training). Overall the office operations meet or exceed the management guidelines for a NCSU Center or Institute. The SCONC serves as a model for other State Climate Offices around the country. The finances are adequately maintained, the office is spacious with innovative technology in the common area, there is a positive work culture, the Director and staff are highly trained, motivated and dedicated to the success of the office. The SCONC has a well-established and thriving
student internship program. They run an extensive and unique network of weather stations (ECONet). The SCONC plays a critical role in identifying, developing and implementing actionable science for the State of North Carolina through a comprehensive research, outreach, and service program. They have a solid climate service program that continues to evolve in order to meet the ever growing complexity of requests. While the SCONC is thriving in most areas of operation the SRT did identify three high priority needs under office operations that should be addressed. Several additional needs emerged and while they are a lower priority the SRT recommends action should be considered.

The highest priority that should be addressed is the appointment of a Director of the SCONC. Aaron Simms has served as the Interim Director for 1.5 years. Staff and external partners stressed the need for an official appointment. Staff commended Dr. Simms on his overall role as Director recognizing that he moved into the position abruptly due to the unexpected departure of the previous Director. His management style promotes a healthy and collegial process for ongoing feedback and support. He is open to new project ideas and provides constructive feedback on the weekly reports that all staff are required to submit. Over the past 1.5 years he has grown into the leadership role. His strong support of the ECONet was appreciated and recognized. There has been minimal staff turn-over despite the transition due to the positive office culture and environment. This speaks volumes to the office leadership and level of staff commitment to the program. While the staff supported Dr. Simms appointment to Director they were not opposed to an external search to fill the position so long as the staff were included throughout the search and hiring process.

Staff strongly recommended the need for a staff retreat to focus on the vision of the office and to establish a strategic plan for the next 5 to 10 years. Dr. Simms has been hesitant to move forward with this request due to budget limitations and because he has been serving as an Interim Director. Staff also requested more transparency on budget discussions and more face to face interaction with the Director. The Director should be engaged at the state and national level by attending conferences and meetings.

Another high priority recommendation includes the need for additional core state support for staff salaries and for the operating budget. The SCONC currently has nine staff scientists, one Information Technology (IT) staff member, two temporary employees, five undergraduate students, and one graduate student working at the Center. The College of Sciences supports 2.87 FTE and a $30,000 operating budget. The North Carolina Agricultural Research Service supports 1.05 FTE and a Mesonet operating budget of $57,000. The remaining staff and student salary are funded
through external contracts and grants. Depending on soft money for the majority of the salaries has been challenging and has impacted the office’s ability to meet the high demand for climate service and outreach. There is an immediate need to reestablish the Program Associate position that was lost in December 2016 due to budget cuts. The duties of the Program Associate which included coordinating daily office operations, grant management, monthly invoicing, outreach coordination, and all other administrative functions had to be distributed among the staff scientist. Reestablishing the position would give the staff the time to focus on their primary job duties, strategic planning, grant writing, and partnership development.

There is also a need for at least a 0.5 FTE devoted to outreach. The demand for climate-based educational activities and tours exceeds the Center’s resources. Effective science outreach is needed more than ever in our society. With the advancement of technology, improving science literacy is essential. Science outreach generates appreciation in the community for the profession and institution. It demonstrates to funding agencies that you are making a difference and typically leads to stronger partnerships. Without a dedicated outreach specialist at the SCONC the efforts are spread among the staff. The staff should be commended for the amount of outreach they have been able to accomplish without a dedicated specialist. Over the last five years staff have participated in over 142,000 total direct educational outreach contact hours, given tours to 92 visitor groups, and provided 184 presentations by invitation.

Consideration should be given to allow another SCONC staff member to serve as a Principal Investigator (PI) on contracts and grants. Currently Dr. Simms is the only SCONC staff member allowed to serve as a PI. Having an additional PI would provide more opportunity for pursuing additional grants and would improve the efficiency of how current grants are managed.

The SCONC is recognized nationally among our profession for their strong support and investment in students. The SCONC has supported and trained 23 undergraduates and 7 graduate students over the past five years. Five SCONC students have completed their Master of Science degrees and two have earned Ph.D.’s from the Department of Marine, Earth, and Atmospheric Sciences. SCONC have provided an opportunity for the students to gain on the job experience interacting with clients and stakeholders, analyzing and preparing climate data, participating in scientific meetings, and developing technical skills. The students graduating with paid or unpaid internship experience have a much better chance at finding a full-time position. The SCONC also recognizes that the students bring a source of highly motivated pre-professionals to the organization with fresh ideas and new perspectives that can be a cost-effective solution for short-term office operations and projects.

The SCONC runs a state-of-the-art network of weather and environmental observing stations. These observations support numerous products and services (e.g., the Fire Weather Intelligence Portal FWIP and Peanut Disease Advisories) for state,
local, and federal agencies as well as educational institutions. The data are used in multiple applied climate research applications.

The SRT was impressed with the recordkeeping and internal communication among staff and students. The SCONC has developed methods for weekly reporting by staff, tracking data and information requests to completion, and general staff communication. This is very important, especially with students, who often have changing schedules throughout the year. The internal database development and management is invisible to many outsiders, but illustrates the skill and talents of the staff beyond the climate-related work that they do.

**Institutional Coordination**

Another element of the Center’s effectiveness is measured by how well and in what capacity it interacts with other UNC system campuses, departments, units and individuals. Overall, collaborating partners spoke very favorably of the SCONC. They found high quality of work, skilled and talented staff, good communication, and found value in the investments they made on projects. At the same time, there was an acknowledgement of potential opportunities for growth, which was also echoed by off-campus partners and the SCONC itself in its self-evaluation materials. Financially, the SCONC has leveraged the CALS and NCARS support to attract, in the last two years, approximately double the return in grants and contracts. This amount has been on the rise in the last five year period.

CALS faculty have had a long and rich collaboration with the SCONC through the various agriculture-related projects that have been undertaken. Multiple crop disease models, field-level weather and micro-climate projects, and the large USDA PINEMAP project, among others, have illustrated the value of the SCONC in this area. Agriculture in North Carolina and the southeast region is diverse, and there is an expectation for more opportunity to continue efforts in climate and agricultural applications.

The SRT is aware of some joint efforts between the SCONC and Cooperative Extension (NCCES). Recognizing the long, successful track record of the SCONC and agriculture applications and science communication, the SRT recommends a more formal collaboration between the two entities. One suggestion is to have a NCCES-funded staff member housed in or affiliated with the SCONC. This could be a 0.5-1.0 FTE staff appointment, or faculty or “agent” level, to formalize the connection between the SCONC and NCCES. Many other state climate offices are tied in some way to Cooperative Extension, such as Missouri, South Dakota, Nebraska, Kansas, and Michigan. Several other Land Grant Universities have extension climatologists on staff. Recent fruitful efforts between the SCONC and NCCES have provided an excellent start.
to a potential long-term partnership. Experience in other states has shown that agriculture producers are receptive to these scientists as communicators.

The financial support offered by NCARS is also acknowledged by the SRT. This base-funding support for the ECONet is critical in maintaining the infrastructure and timely data delivery. The ECONet and SCONC have been able to leverage this investment to secure several partners in station sponsorship and other funded projects. Over time, the data produced by the ECONet will provide an excellent climate-quality data set for the state of North Carolina. One concern is that the ECONet staff are at capacity for workload (Sean Heuser and part time/seasonal help). Similar sized mesonets at other Land Grant Universities have 2.0 or more FTE dedicated to network operations, calibration, and maintenance year-round.

As noted above, the University policy for Principal Investigators (PIs) is one restriction that is challenging the management and the operational effectiveness of the SCONC. Current policy states that PIs must be one of the following: a tenure track faculty, Extension faculty, and NCARS and NCCES Researcher and Senior Researcher positions, and some others with PhD degrees. (https://research.ncsu.edu/sparcs/policies-and-procedures/pi-eligibility/) This is not a limitation of the sponsoring organizations. The SRT recommends an exemption to this rule for at least one other staff member (e.g. Assistant State Climatologist or Assistant Director), who holds a Master’s degree or higher. This would provide multiple benefits, including: dividing workload of PI responsibilities to another party who is capable and who also provides oversight of staff and students; ensure there is not a “single point of failure” on some projects due to the large workload that currently burdens a single PI (the Director); enable additional proposals, grants and/or contracts to be prepared and applied for in order to increase the SCONC’s ability to secure external funds. This exemption for PIs will ensure the SCONC’s competitiveness in the soft-money environment, and ease internal stress with people and project management.

The external forces that include a string of interim leadership positions at the College level has brought discomfort to the SCONC. Policy, organizational, and operational changes have resulted in some workload adjustments that were not expected in the last two years. The SRT realizes this is outside of their control, but it affects the staff’s morale and uncertainty among SCONC staff.

University collaborators/partners have noted a desire to interact with the SCONC Director around campus and in other departments. The SRT recommends that the Director be admitted as an adjunct faculty (or similar mechanism) in the MEAS department, similar to his predecessor. This would enable a higher level of engagement through the Director to be involved in an academic department, its communications, and forge new or continuing collaborations, thus tying the SCONC to other campus programs, faculty, and students.
Campus faculty also support the idea of a “show and tell tour” from the SCONC Director. An idea that was expressed included the Director inquiring with various departments or other campus centers or units, with the goal of visiting several of them during staff/faculty meetings. This could bring more exposure of the SCONC to other campus entities that have forgotten or were unaware of the SCONC, the ECONet, and their capabilities. These brief presentations would serve the dual purpose of reintroducing Dr. Sims as the Interim Director, since Dr. Ryan Boyles had left.

The Science House is recognized as a potential on-campus partner for future outreach and education work. There have been some efforts in the past between the SCONC and the Science House in the area of science communication and informal education. One notable difference between the SCONC and the Science House is in their approach. The SCONC has generally favored direct contact with students, citizens, classrooms, and others at outreach events or programs. The Science House appears to favor the “train-the-trainer” method, targeting formal education teachers, and also larger camps and events. Both approaches are valuable and provide excellent exposure to STEM disciplines, meteorology and climatology, and bring the NCSU “brand” to potential future students. This potential partnership is something to consider, but the SRT does not find them overlapping in effort.

**Partner/Stakeholder Capacity**

External partners and stakeholders spoke very favorably about the SCONC and their collaborations in recent years. They also recognize there is some room for growth, as there is a lot of interest in weather, water and climate data for a multitude of applications.

The external partners noted the abrupt change in leadership at the SCONC that occurred 18 months ago. There was a sentiment of lack of communication around the transition. They agree that Dr. Sims is doing a great job in operating and managing the SCONC, from their point of view. External partners did not notice any reduction in performance or lag in deliverables during the transition. They said that now, more often than during Dr. Boyles’ tenure, that they interact with the staff more directly than the Director. This is not necessarily worrisome, but they do sometimes desire more visibility of the Director at various meetings, conferences or other events, or even just a “check-in” with status and progress. In some circles, at some times, the title of SCONC Director or State Climatologist, does carry some weight and may bring more trust or authority.

It appears the Extension Advisory Committee (EAC) mechanism is not being fully utilized at the current time. The Charter (online) states that this group should meet once a year. This is a great opportunity to continue external partnerships, and learn what more can be created/developed together, and find new collaborations. This would also be a way in which the Director could be more visible to partners, as they would like to see. It is understood that there are two smaller advisory groups in operation at the
current time: Cooperative Extension and Mesonet. These can be merged into one larger group as an EAC, but the SRT advises that other external partners also be invited. They could include current or past partners, or others in which there is potential but has not come to fruition yet. Some example external partners could be state or federal agency representatives, those with interests in coastal climate, non-profits or commodity groups, and/or agricultural producers.

The SRT’s time with the Water Engineer representative was especially enlightening. He illustrated a handful of new or emerging areas in the transportation sector in which he could see the SCONC becoming involved. He also explained some funding mechanisms that could help support both long term and short term (e.g. case study) work in the SCONC. It is suggested that the SCONC reach out to the Department of Transportation and others, maybe through the EAC, to explore similar possibilities.

Partnerships with federal agencies is mixed. There is a deep, long-term partnership with the NOAA National Weather Service forecast office that is housed in the same building. This is common among many state climate offices, and it is encouraging to see the same in North Carolina. The USDA regional climate hub also has a staff member/fellow that works from the SCONC office part-time. This is a unique partnership in this region and the SCONC is fortunate to have a close connection to the USDA hub.

The North Carolina Institute for Climate Studies and the NOAA Cooperative Institute for Climate and Satellites in Asheville has not had much formal interaction in the past with SCONC. This is not uncommon among NOAA Cooperative Institutes, in that they can often favor the local institutions for their research and outreach partnerships. It is unclear at this time on what potential there may be in the future in collaborations with this institute. Despite the fact that they are a part of NCSU, they are based in Asheville, and often connect with local federal and education partners in western North Carolina for many of their outreach efforts.

The USGS Climate Science Center is another potential partner in the future, as it has been in the past. There may be some concern about their current interim director (Dr. Ryan Boyles), who was the former SCONC Director, and any conflict of interest during his transition to the USGS. In the long-term, there may again be some potential for partnership in student or staff projects.

Background research by the SRT discovered that there are several higher education institutions that offer degrees in atmospheric science or related fields in North Carolina. Although it is sometimes challenging to make connections with faculty at other UNC institutions, it seems there is a pool of good faculty and students that could collaborate or have similar interests across the state. NCSU certainly stands out among them, however, with a strong atmospheric and climate academic, service and research program.
Although the SRT did not interface with the staff from the Southeast Regional Climate Center, the partnership between SCONC and UNC-Chapel Hill is known among peers and was reflected in their financial documents. The data services that are provided by the SCONC are essential to the success of the Regional Climate Center. This is a key partnership that has helped to highlight the capabilities of SCONC in the regional and national spotlight. In fact, the data services, decision support services, data visualization and updated SCONC website that have been developed in the last five years present to the public a positive online “face” of the University and the state as a whole.

**Conclusion**

To a substantial degree, the SRT found that the SCONC meets or exceeds the management guidelines for a NCSU Center or Institute. The SCONC has a solid 41-year history of serving as a focal point for weather and climate information for the citizens of North Carolina. While the demand for weather and climate information and services has exponentially grown, the SCONC has expanded to meet the demand, both in personnel capacity and technological advancements.

**Key Findings**

- The office has had a consistent core mission focused on applied research, extension, and education that was identified by the UNC Board of Governors in 1998. The SRT believes the SCONC has successfully met this mission in the last five years.
- The financial accounts appear to be properly maintained, and the SCONC has been able to successfully leverage the state and university investment to secure external grants and contracts.
- There is a very positive office working environment and culture. The Director and staff are highly motivated and dedicated to the success of the program.
- The SCONC annually fulfills the requirements to be an American Association of State Climatologists Recognized State Climate Office (ARSCO) by demonstrating office communication capabilities, information services, research, and outreach ([http://www.stateclimate.org/arso](http://www.stateclimate.org/arso)). The SCONC has been recognized by other State Climate Offices for their success in stakeholder engagement, climate service, applied climate research, development of actionable science, Mesonet operations, and student internships.
- There is a desire for more visibility of the Director to external entities, both within NCSU and off-campus.

**Key Recommendations**
The Site Review Team recommends that the State Climate Office of North Carolina should continue to function as a Service Center of North Carolina State University.

Our additional recommendations for the University include:

- Appoint a permanent Director. Both SCONC staff and external entities find Dr. Aaron Sims to be performing well. While the staff supported Dr. Simms appointment to Director they were not opposed to an external search to fill the position so long as the staff were included throughout the search and hiring process. The SRT agrees that he is an excellent candidate, capable and well-suited for the role, and would also support that the staff are involved in the process of appointing a permanent Director.

- Provide an exemption for at least one additional SCONC staff member to serve as PI for grants and contracts.

- Provide at least 0.5 FTE Program Associate position to assist with grant and financial management. A substantial increase in external grant and contract activity arrived just as their dedicated administrative staff was re-assigned to another campus unit. This has been an enormous burden on staff in the last 18 months. The Program Associate position would reduce the administrative burden of the Director and Associate Director, while providing more time to develop and maintain partners and projects.

- Continue to provide essential salary and operating funds at or above current levels for the staff of the SCONC and ECONet. As the ECONet has grown, an additional FTE may be needed to effectively maintain the high quality 40+ field stations and in-house lab testing and calibration functions. This would be consistent with other mesonets of similar size at other Land Grant Universities.

- Add 0.5-1.0 FTE position dedicated to outreach. One suggestion is to consider this to be a formal partnership with NCCES, who often work at the boundary of science and communication and applications. NCCES also has built-in ties with youth (through 4-H), and adult learners (through communities, volunteer groups, and agricultural producers).

A recommendation for the SCONC: To re-establish the Extension Advisory Committee. This could be fruitful in maintaining visibility of the Director and the SCONC with partners, and also bring new funding opportunities and new partnerships to the SCONC. This group could serve as a “learning community” to secure feedback on strategic directions, website or communication changes, and/or product and tool development.

The Site Review Team would like to congratulate the State Climate Office of North Carolina on its success in the past five years. It was our pleasure to become
better acquainted with the staff, University, and partners of the Center during this process. We expect continued success and achievement by the Center in its next five year period, and beyond.

Laura Edwards
South Dakota State Climatologist

Hope Mizzell
South Carolina State Climatologist
April 9, 2018

Dr. Jonathan Horowitz  
Assistant Vice Chancellor for Research Infrastructure  
Office of Research Innovation and Economic Development  
Poulton Innovation Center 212  
North Carolina State University  
Raleigh, NC 27695-7018

RE: College of Sciences Response to the 2018 Review of the State Climate Office

Dear Dr. Horowitz:

The required external 5-year review of the State Climate Office (SCO) occurred on January 30, 2018. The External Review Committee (ERC) consisted of Dr. Laura Edwards, South Dakota State Climatologist and Dr. Hope Mizzell, South Carolina State Climatologist and current President of the American Association of State Climatologists.

The ERC remarked that “The SCONC serves as a model for other State Climate Offices around the country”, recognizing “innovative technology…positive work culture…highly trained, motivated and dedicated to the success of the office.” The ERC was emphatic that the SCO continue to function as a North Carolina State University Center.

The College of Sciences concurs with that recommendation and strongly recommends continuation of the Center. The College will continue to provide base support for the Center and will immediately embark on a search for a permanent Director. The College will work with the Director to address the many useful suggestions and recommendations provided in the final report from the ERC.

Respectfully yours,

[Signature]

Associate Dean for Research

c: Dr. Alan Rebar, Vice Chancellor of Research, Innovation and Economic Development  
Dr. A. Sims, Interim Director of SCO  
Dr. M. C. McGahan, Dean of the College of Sciences  
Ms. Larisa Slark, Senior Administrative Coordinator of Centers and Institutes
MEMORANDUM

TO: W. Randolph Woodson
   Chancellor
   NC State University

FROM: Alan H. Rebar
      Vice Chancellor for Research, Innovation and Economic Development
      NC State University

SUBJECT: Recommendation to continue the State Climate Office of NC (SCONC) under Regulation 10.10.04

DATE: May 9, 2018

In accordance with Regulation 10.10.04, the Office of Research, Innovation and Economic Development completed a Periodic review of the State Climate Office of NC (SConC) for the period 2012-2017.

The Report delivered by the Review Committee strongly supports continuation of the Center, and concludes that SCONC serves as a model for State Climate Offices across the nation. The external review team concluded that SCONC plays a critical role in identifying, developing and implementing actionable climate science for the State of North Carolina through comprehensive research, outreach, and service programs.

The Report includes a number of recommendations, including the appointment of a permanent Director and the initiation of a strategic planning process. The recommendations of the Review Committee were accepted by the College of Sciences (COS), and the College requests continuance of the Center.

The Office of Research, Innovation and Economic Development and the Provost endorse the request to continue SCONC as a university Center as sanctioned by the Board of Trustees, and I request your approval of this recommendation.

AHR/mh

cc: Chris McGahan, Dean, College of Sciences
    A. Sims, Interim Director, SCO
    Mladen Vouk, Associate Vice Chancellor, Research Development
    Jonathan Horowitz, Assistant Vice Chancellor, Research Administration
    Larisa Slark, Senior Administrative Coordinator – Centers and Institutes
MEMORANDUM

TO: Alan H. Rebar
Vice Chancellor for Research, Innovation and Economic Development
FROM: W. Randolph Woodson
Chancellor
SUBJECT: Recommendation to continue the State Climate Office of NC (SCONC) under Regulation 10.10.04
DATE: May 10, 2018

In response to your Memorandum dated May 9, 2018, authorization is hereby granted to forward the request to continue the State Climate Office of NC (SCONC) to the Board of Trustees for approval.

WRW/mh

cc: Chris McGahan, Dean, College of Sciences
    A. Sims, Interim Director, SCONC
    Mladen Vouk, Associate Vice Chancellor, Research Development
    Jonathan Horowitz, Assistant Vice Chancellor, Research Administration
    Larisa Slark, Senior Administrative Coordinator – Centers and Institutes
NC State University's
Shelton Leadership Center
5-Year Review
2013 - 2017

March 19, 2018

Review Team:

Louis Hunt
Sr. Vice Provost
Enrollment Management & Services
NC State University

Dennis Kekas
Associate Vice Chancellor
Partnerships & Economic Development;
Executive Director, Institute for Next Generation IT Systems
NC State University

Allison Medlin
Director
Goodnight Scholars Program
NC State University

Terri Mitchell
Vice President, Integration Executive (Ret.)
Watson Health
IBM
Introduction:

The Shelton Leadership Center (SLC) was created in 2002 under authority granted to NC State University by The UNC Policy Manual. *Regulations on Planning, Establishing, and Reviewing Centers and Institutes in the University of North Carolina* (**400.5[R]**) delegates authority to a campus’s Board of Trustees to “authorize the establishment and discontinuation of institutional centers” and assigns responsibility for “oversight and management of each center or institute situated at the campus” to the Chancellor.

In accordance with The UNC Policy Manual, NC State has developed the required regulation governing the operation and review of these units on its campus (*Centers and Institutes*, REG 10.10.04). This regulation requires periodic evaluation of centers and defines a list of specific questions related to the Center’s performance that should be addressed during the 5-year review, including the following:

- How is the Center performing against specific objectives and goals?
- How is the Director performing in areas related to leadership, communication, and management of fiscal and human resources?
- Is current funding sufficient for its continued operation and is there appropriate fiscal oversight?
- Is the space allocated for operation sufficient and appropriate?
- Are the Center’s clients being served?

A previous 5-year review conducted in February 2013 was available to the review panel. That report provided context and helped the panel understand the previous challenges facing the Center and progress that has been made since that time. The 2013 report presented recommendations in seven areas, specifically:

- Extending and growing the activities of the SLC
- Raising awareness of the SLC through systematic and comprehensive marketing
- Updating the vision, mission and strategy of the Center
- Ensuring the sustainability of General Shelton’s legacy
- Creating more opportunities for engagement with other units of NC State (e.g. academic colleges)
- Fundraising to improve the Center’s financial well-being
- Developing metric-based reporting to drive improvements in the SLC
The current 5-year review was guided by a self-study conducted by the SLC, which covered the period of 2013 - 2017. According to that document, the mission of the Center is to “inspire, educate, and develop values-based leaders committed to personal integrity, professional ethics, and selfless service.” Aligned with this mission are the five cornerstones of the Center:

- Honesty
- Integrity
- Diversity
- Social Responsibility
- Compassion

The self-study presented a detailed narrative and specific examples demonstrating the Center’s alignment with NC State’s Strategic Plan, “Pathway to the Future” and with the University of North Carolina System Office’s strategic plan.

Findings:

The SLC has made significant progress since its last review in terms of its own leadership, organizational improvement, governance, programmatic growth and overall mission. Testimonials by students, board members, and others interviewed by the committee attest to the effectiveness of SLC in carrying out its mission. The SLC self-study demonstrated significant progress in multiple areas and provides compelling evidence that the Center and its current leadership is fully aligned with the university’s mission, is on the road to financial self-sufficiency, and is poised to make a greater impact moving forward. The review panel found evidence in multiple areas to support this assertion.

The refresh of the SLC brand, including its new logo, has been successful and will help promote public awareness, programmatic growth, and fundraising potential. The new brand reflects the SLC mission in a broader context of leadership, beyond its historical military focus, which will attract a wider and more diverse audience of leadership candidates from NC State and beyond. For example, the new brand is inclusive of leadership in many domains such as education, the environment, public sector, business, and engineering.

While the SLC “Forum” is still its most recognized activity, attracting nearly 500 participants annually, the Center has expanded its programmatic offerings and has had over 30,000 participants in the last five years. The number of individuals participating in its professional programming has increased 70% since 2013. However, its most notable growth has been the expansion of programming targeted toward K-12 students through strategic partnerships with nonprofit organizations external to the university. The number of pre-college students involved in SLC programs has increased 380% in the past five years and now impacts over 5,000 youths per year. These programs promote the well-being of individuals throughout our community and enhance the reputation of NC State University.
The Center has made progress in aligning its mission and its brand with the university's academic interests. It has expanded its academic offerings and now offers courses that lead to certificates and minors that appeal to students across all academic disciplines. The SLC is partnering with academic departments and colleges across campus, as well as with other units, and is positioning itself to be recognized as the hub where people find academic and programmatic leadership opportunities across the university. In the past five years, the SLC has seen an increase of over 160% in the number of NC State students participating in its programs annually. The Center's increased student impact and its alignment with other academic units across campus has it well-positioned for a more prominent role in the university’s next strategic plan.

The programmatic growth of the Center would not have been possible without additional staffing. This was an area of need identified in the last review and significant progress has been made. The FTE of the Center has grown from approximately 6 to 8.5 in the last five years, including a shared position focused on fundraising.

The Center has benefited greatly as a result of its move to the Hunt Library on NC State’s Centennial Campus and its strategic co-location with the Institute for Emerging Issues (IEI). This change has provided opportunities for synergistic collaborations and sharing of resources. The prestigious location helps elevate the stature of the Center, promotes greater visibility, and assists in its brand development.

As a Center, the SLC has a mission and identified path forward, which is predicated upon developing a sustainable financial model, which ideally will have less reliance upon state-appropriated funds. The current leadership has made great strides moving in this direction. Restructuring the Center’s Board of Advisors is central to this effort.

In an effort to promote more meaningful participation in the governance of the Center, and with the support of General Shelton, the Director has reduced the size of the board, restructured its membership, and introduced a process for rotating members. New members have been strategically identified because of their affinity for the mission of the Center and their ability to assist in fulfilling it. Recent additions to the board include Kevin Howell (UNC System, Sr. Vice President), Joe Anglim (Red Hat, Sr. Director of Strategy), Gayle Lanier (Duke Energy, Sr. Vice President), and Woody Sessions (Cisco, Sr. Vice President). Ed Carney, with his extensive leadership experience, now serves as Chair. Redefined expectations for board members put a greater focus on community and corporate partnership, fundraising, and other forms of meaningful engagement in the Center’s activities.

The director and the board are to be commended on their fiscal oversight of the Center and their efforts to create a more sustainable business model consistent with university’s goals for the financing of Centers. Operational costs appear reasonable and well-managed. Efforts to create an eight-figure endowment for the Center are underway. Several significant gifts have already...
been secured. If success continues, the Center will have a sustainable financial model and will be positioned to fulfill its mission and the goals of its founder for years to come.

Recommendations:

Testimonials by students and others interviewed by the committee attest to the effectiveness of SLC. Participation and assessment data point to the quality the Center’s programming and the positive impact it is making in fulfillment of its mission. The review team strongly recommends its continued operation and believes now is the time to take SLC to the next level. Specific recommendations include the following:

- **Programmatic Prioritization:** SLC has a great number of programmatic offerings. Some of these appear to be “one offs” to accommodate requests from external entities; in some cases, the programs may serve to address budgetary shortfalls. While these programs may appear profitable in the short-run, the committee recommends a careful cost-benefit analysis that includes opportunity costs to ensure they are consistent with the Center’s long-term strategic goals and that they do not detract from core programming efforts. Furthermore, the SLC should identify the essential elements of its core programming content and delivery. Defining what is unique to SLC programs will help guide future program development and branding efforts. We also recommend the SLC set programmatic goals regarding the number and types (NCSU students, women, K-12, under-represented minority, etc) of participants the center wants to reach in the next 5 years, and establish a system to track the progress against those goals.

- **Telling the SLC Story:** Greater emphasis should be placed on promoting SLC and its updated brand. This marketing should complement efforts to grow SLC to its next level. This might include the use of video, social media, and testimonials that highlight the mission and success of the Center and tie it more closely to NC State’s “Think and Do the Extraordinary” campaign. Messaging should appeal to prospective program participants as well as donors. The Center should align itself with other co-curricular programs in an effort to become recognized as a core part of the “NC State experience”. For example, the university’s next strategic plan could include a goal of having all undergraduate students participate in a values-based leadership, entrepreneurship, design-thinking, or similar programming experience prior to graduation. A thoughtful integration of these co-curricular activities would be consistent with the university’s mission and would enhance the value of an NC State degree in the marketplace.
• **Forum Theme Assessment:** SLC should develop a formal process for identifying themes for future Forums. That process should include the Board of Advisors, NC State’s Council of Deans, and perhaps others. This approach will ensure that the theme is timely and forward-focused; it will promote academic collaboration and programmatic connections; and, it will help elevate the brand and positioning of the Center within the university and beyond.

• **Scholarship Selection and Funding:** The committee recommends an examination of the Center’s scholarship selection and funding processes. It might be possible to align scholarship dollars more closely to the Center’s goals, and in a way that the brand of the Center accrues more goodwill and recognition as a result of those scholarship awards. Streamlining the scholarship selection to a single process, perhaps similar to that of the College of Textiles, would allow for a more unified scholarship identity and efficient use of staff time. Additional tracking of scholarship recipients and their successes will help address branding and fundraising goals, too.

• **Marketing Focus:** Cultivation of future donors should be a prime focus of SLC marketing efforts. Values-based leadership should resonate with donors as well as program participants.

• **Links to Entrepreneurship Programs:** SLC should strive to communicate its marketing messages and programmatic offerings to other leadership programs like HQ Raleigh, NC State’s Entrepreneurship Initiative, etc.

The review panel would like to thank the Director and staff of the SLC, and all other participants of this review, for their frank and open participation in this process. The success of the Shelton Leadership Center is dependent upon the board, the Director and staff, and previous participants of its programs. It is clear that all are committed to promoting values-based principles of leadership that are founded in research and practice, and to creating a lasting legacy to General H. Hugh Shelton.
Purpose
This document provides the Shelton Leadership Center’s (SLC) response to the Review Committee’s Recommendations, in accordance with the Office of Research, Innovation & Economic Development (ORIED) “Management Guide for Centers and Institutes” which states:

“Upon completion of the CI review, the Review Committee will prepare a written report that will be sent to the AVC. The AVC will forward this report to the RA, CI Director and other key individuals for evaluation. The CI Director will disseminate the report to CI faculty and develop a response to the recommendations of the Review Committee.”

SLC Response
The Review Committee strongly recommends the SLC’s continued operation and believes that the time is ideal for taking the SLC to the next level. The Committee has addressed six specific areas in its recommendations where it believes emphasis and action can result in successful elevation of the SLC and its programs. Each recommendation and the SLC’s response is listed below:

Programmatic Prioritization - During the latter half of the 2013-2017 review period, the SLC has experienced a greater level of interest both on campus and externally regarding its programs, events, and academic courses. Staff size has not increased proportionally. SLC staff is in agreement with the recommendation to conduct a cost-benefit analysis to accomplish three key objectives:

- To evaluate all Center programs and phase out programs that are not consistent with long term goals or that stray from the Center’s mission and stated objectives.
- To be intentional about what services will be offered that do not have funding sources to cover the program cost. This will be based on for-fee programming income projections for each budget year -- a predetermined percentage of projected income over expenses will be available to support waived fee programs. On-campus units and other organizations that clearly fall within the University’s desired outreach will be given greatest consideration for waiving of program fees.
To develop a realistic staffing projection needed to continue existing and projected programs, events and academic courses that align with the University’s objectives.

Furthermore, the SLC staff will set programmatic goals based on the audience type it seeks that will best promote its mission as it supports the University with its goals and objectives. Yearly progress will be tracked against these goals.

**Telling the SLC Story** - The SLC is in the beginning stages of updating its brand to more closely align with the University as well as to better represent what the Center offers and who it best serves. An investment is being made in the area of branding and communications that should pay off in years to come by attracting new donors as well as new audiences.

The SLC is currently rolling out its new logo and tagline, created this fiscal year; and, a new website will be created and in use by Fall, 2018. A position dedicated to communications will be an investment in the Center’s future success, but justification for this new position must be prepared in order to develop a funding strategy to support it.

Research is clear that employers in the marketplace are looking to universities to graduate students with well rounded leadership skills and characteristics that include maturity, trustworthiness, confidence, excellent communication skills, ease in working with a diverse team, empathy, and much more -- all of which are addressed through components of any “Shelton Experience.” SLC staff agrees with the Review Committee that it could give NC State a competitive edge to include a Leadership component in its next strategic plan. Integrating a co-curricular leadership program or experience as an undergraduate opportunity for all students would most certainly enhance the value of an NC State degree in the marketplace. Furthermore, it would most likely be attractive to donors to see high quality STEM degrees further enhanced by graduates’ personal leadership growth.

**Forum Theme Assessment** - SLC staff is in agreement with the Review Committee’s recommendation that the process for choosing a theme for each annual Leadership Forum should become more formalized. A body of advisors that includes NC State faculty and staff as well as external representatives from the business community will ensure that the Forum remains relevant and forward-focused. It may also provide the resources needed to look beyond a year in predicting topics of interest within the theme of values-based leadership.
**Scholarship Selection and Funding** - The Review Committee has recognized the need for the Center to reassess its scholarship selection and funding processes. This was a topic at the most recent SLC Board of Advisors meeting on April 13, 2018, and a task group was formed to evaluate scholarship processes and make recommendations. The Center has evolved; it is time for the scholarships process to be studied to simplify it as well as to ensure that maximum value for students is being realized with funds from this endowment, while closely adhering to the endowment intent.

**Marketing Focus** - The Review Committee recommends that SLC’s marketing focus be toward donors rather than participants. Their reasoning is that many of the Center’s programs, events and academic courses fill up and then have waiting lists; what is needed is financial investors to the programs so that they can be expanded to meet the current and projected interest. Staff agrees that a number of Shelton experiences regularly fill to capacity and donors should be a key factor in marketing outreach. However, one exception is the annual Leadership Forum, where it is believed that investing in additional marketing and communications services will increase attendance numbers without requiring significant additional staff resources.

**Links to Entrepreneurship Programs** - The Center currently has a positive working relationship with the Entrepreneurship Initiative (EI) and HQ Raleigh. Recently, SLC’s Director served as a Mentor to a recently graduated NC State alum working with HQ Raleigh to develop her business. And, the SLC is bringing the EI in as a partner as it rolls out a new program this year in North Carolina, “The Shelton-Albright Rural Entrepreneurial Leadership Program”. The SLC continues to seek partnerships with both entrepreneurship and leadership programs throughout campus in an effort to make leadership programming more available to NC State students while keeping staff size as lean as possible.

**Conclusion**
SLC staff is very appreciative of the time and thought that was put into this Five-Year Review by its Review Committee members. The recommendations offered in some cases confirmed staff’s observations while others offered fresh new ideas that have energized creative thinking and challenged the team to a more defined strategy going forward. “Think and Do the Extraordinary” is a theme that has been taken to heart by all SLC staff as it is applied to expanding leadership resources and opportunities throughout the university, throughout North Carolina, and wherever NC State serves.
May 21, 2018

Dr. Jonathan Horowitz  
Assistant Vice Chancellor for Research Infrastructure  
Office of Research Innovation and Economic Development  
Poulton Innovation Center 212  
North Carolina State University  
Raleigh, NC 27695-7018

RE: Office of the Executive Vice Chancellor and Provost Response to the 2018 Review of the General Henry Hugh Shelton Leadership Center

Dear Dr. Horowitz:

The required external 5-year review of the Shelton Leadership Center (SLC) occurred on March 19, 2018. The External Review Committee (ERC) consisted of Louis Hunt, Senior Vice Provost for Enrollment Management and Services, Dennis Kekas, Associate Vice Chancellor for Partnerships and Economic Development, Alison Medlin, Director of the Goodnight Scholars Program and Teri Mitchell, Vice President, Watson Health, IBM.

The ERC remarked that “Testimonials by students and others interviewed by the committee attest to the effectiveness of SLC. Participation and assessment data point to the quality the Center’s programming and the positive impact it is making in fulfillment of its mission.” The ERC strongly recommended its continued operation with opportunities to move to the next level.

The Office of the Executive Vice Chancellor and Provost concurs with that recommendation and strongly recommends continuation of the Center. My office will work with the Director to address the recommendations provided in the final report from the ERC and help the SLC excel to that next level.

Thank you in advance for your assistance.

Sincerely,

Warwick A. Arden  
Executive Vice Chancellor and Provost

WAA/kmw
MEMORANDUM

TO:        W. Randolph Woodson
            Chancellor
            NC State University

FROM:     Alan H. Rebar
            Vice Chancellor for Research, Innovation and Economic Development
            NC State University

SUBJECT: Recommendation to continue the General H. Hugh Shelton Leadership Center
          (SLC) under Regulation 10.10.04

DATE:     May 29, 2018

In accordance with Regulation 10.10.04, the Office of Research, Innovation and Economic
Development completed a Periodic review of the General H. Hugh Shelton Leadership Center
(SLC) for the period 2012-2017.

The Report delivered by the Review Committee strongly supports continuation of the Center, and
applauds the Center’s efforts since the last periodic review. In particular the review team cited the
Center’s alignment with the university’s mission, financial trajectory, refreshed branding and
growth in its professional programming.

The Report includes a number of recommendations, including the prioritization of its programs so
that they are well aligned with the strategic goals of the Center as well as greater emphasis on
promoting the SLC brand at NC State and beyond. The recommendations of the Review
Committee were accepted by the Provost, and the Provost requests continuance of the Center.

The Office of Research and Innovation and the Provost endorse the request to continue SLC as a
university Center as sanctioned by the Board of Trustees, and I request your approval of this
recommendation.

AHR/mh

cc: Warwick Arden, Executive Vice Chancellor and Provost
    Mladen Vouk, Associate Vice Chancellor, Research Development
    Jonathan Horowitz, Assistant Vice Chancellor, Research Administration
    Lania Stark, Senior Administrative Coordinator – Centers and Institutes
MEMORANDUM

TO: Alan H. Rebar  
Vice Chancellor for Research, Innovation and Economic Development

FROM: W. Randolph Woodson  
Chancellor

SUBJECT: Recommendation to continue the General H. Hugh Shelton Leadership Center (SLC) under Regulation 10.10.04

DATE: May 30, 2018

In response to your Memorandum dated May 29, 2018, authorization is hereby granted to forward the request to continue the General H. Hugh Shelton Leadership Center (SLC) to the Board of Trustees for approval.

WRW/mh

cc: Warwick Arden, Executive Vice Chancellor and Provost  
Mladen Vouk, Associate Vice Chancellor, Research Development  
Jonathan Horowitz, Assistant Vice Chancellor, Research Administration  
Larisa Slark, Senior Administrative Coordinator – Centers and Institutes
Designation of Time Limited Option for Distinguished Professorships

Background: Donors who endow a distinguished professorship at NC State University may elect to pursue matching funds available through the state’s Distinguished Professors Endowment Trust Fund (DPETF). In accordance with state statutes, as well as University of North Carolina system and NC State University policies, the NC State University Board of Trustees (BoT) is authorized to designate that endowed distinguished professorships seeking DPETF matching funds may be time limited.

We request this designation from the BoT when a donor agreement indicates intent that a distinguished professorship be awarded, or potentially awarded, at a rank other than professor (i.e. assistant, associate professor) and/or for a period other than an individual’s full career.

This designation provides the university with the maximum flexibility in awarding the distinguished professorship over time. Still, the overwhelming majority of NC State’s distinguished professorships are offered to professors for the duration of their career at NC State.

Recommended Action: We request designation of the following distinguished professorship which may be time-limited:

1. Goodnight Innovation Distinguished Professorship #1, College of Sciences, $1.5M endowment
2. Goodnight Innovation Distinguished Professorship #2, College of Sciences, $1.5M endowment
3. Goodnight Innovation Distinguished Professorship #3, College of Sciences, $1.5M endowment
5. Charles W. Suggs Distinguished Professorship in Biological and Agricultural Engineering, College of Agriculture and Life Sciences, $1M endowment

Policy References:
- UNC Policy 600.2.3 - Distinguished Professors Endowment Trust Fund
- NCSU Policy 01.05.01 – Board of Trustees Bylaws
- NCSU Regulation 05.20.17 – Professorships of Distinction
Conferral of Academic Tenure:

The information regarding conferral of academic tenure is included in the Closed Session Materials – Tab 7.4A.a.
REQUESTED
ACTION
ITEMS
PROPOSED REVISION TO: POL05.25.01: Faculty Grievance and Non-Reappointment Review Policy

Rationale: Adjusted requirements for the grievance / review committee membership to account for colleges that appoint faculty only on non-tenure track contracts.

Consultation Process:

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<tr>
<th>Date</th>
<th>Event Description</th>
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<tr>
<td>March 22, 2018</td>
<td>Faculty Senate Executive Committee review</td>
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<tr>
<td>March 27, 2018</td>
<td>Provost authorizes transmittal of PRR for review</td>
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<tr>
<td>March 27, 2018</td>
<td>General Counsel review</td>
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<tr>
<td>May 1, 2018</td>
<td>Chancellor’s Cabinet Meeting</td>
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<tr>
<td>July 20, 2018</td>
<td>Board of Trustees (approval)</td>
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<tr>
<td>August 13, 2018</td>
<td>University Council (notification), if applicable</td>
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Authority

Board of Trustees

Title: Faculty Grievance and Non-Reappointment Review Policy

Classification

PRR Subject

Contact Info

Vice Chancellor and General Counsel (919-515-3071)


Related Policies:

UNC Code Section 604 - Appointment, Non-reappointment and Requirements of Notice and Review

UNC Code Section 607 - Faculty Grievance Committee for Constituent Institutions

UNC Code Section 610 – Rights of Special Faculty Members

UNC Policy Manual 101.3.1 – Review of Non-reappointment Decisions under Section 604 of The Code

UNC Policy Manual 101.3.2 - Grievances Filed Pursuant to Section 607 of the Code
1. INTRODUCTION

The purpose of this policy is to provide an internal university process for the good faith resolution of employment-related faculty issues. Employment related faculty issues covered by the Code of the Board of Governors of the University of North Carolina (The Code) include (a) grievances in which a faculty member seeks redress concerning general employment-related actions including post-tenure review and denial of promotion (Section 607 of The Code) and (b) reviews of non-reappointment decisions of tenure-track faculty members (Section 604 of The Code). This policy implements the general requirements set forth in The Code, while NCSU REG 04.25.04 (Faculty Grievance and Non-Reappointment Review Procedures) establishes the procedures to be followed for a grievance or non-reappointment review including but not limited to the specific steps involved for the entire grievance or review process.

2. FACULTY GRIEVANCE/REVIEW COMMITTEE

2.1 Faculty Grievance/Review Committee Membership

There shall be a standing university committee elected by the General Faculty and designated as the Faculty Grievance/Review Committee. Each college shall elect two (2) members of the General Faculty to serve; at least one member from each college must be a tenured associate or full professor; the membership from colleges that appoint faculty only on non-tenure track contracts may vary from this requirement. The General Constituency shall elect two (2) members to serve. The Faculty Grievance/Review Committee may not include anyone with an administrative appointment. Committee members will be elected to an initial two-year term and may be eligible for re-election to an additional two-year term. After serving two consecutive terms, a faculty member can become eligible for re-election after a break of one year. Elections shall be held annually and the terms of the members shall be staggered. The timing of and procedures for elections shall coincide with the elections for the Faculty Senate. Members of the Faculty Grievance/Review Committee must complete annual training from the Office of General Counsel before serving on a grievance or review panel.

2.2 Faculty Grievance/Review Committee Chair

The Chancellor shall appoint a chair of the Faculty Grievance/Review Committee from the elected members after conferring with the Chair of the Faculty. The Faculty Grievance/Review Committee Chair shall be appointed for a two-year term; if the Chair is unable to complete the two-year term, the
Chancellor shall confer with the Chair of the Faculty and appoint a new Faculty Grievance/Review Committee Chair from the Faculty Grievance/Review Committee to finish the term. The Faculty Grievance/Review Committee Chair shall be responsible for appointing members from the Grievance/Review Committee to serve on panels to hear faculty grievances or reviews. The Faculty Grievance/Review Committee Chair shall also be responsible for making an annual report to the Faculty Senate and the Chancellor concerning the review and grievance process. As necessary, the Faculty Grievance/Review Committee Chair may, in collaboration with the Faculty Senate Governance and Personnel Policy Committee, conduct a periodic review of the grievance and review process for the purpose of considering any proposed revisions to this policy or any accompanying regulations.

3. REVIEWS OF NON-REAPPOINTMENT DECISIONS (SECTION 604)

Reviews of non-reappointment decisions (including a denial of tenure) pursuant to Section 604 of The Code may be sought by tenure-track faculty members (“Non-Reappointment Review”). The faculty member who seeks a Non-Reappointment Review is the petitioner.

3.1 Grounds for Non-reappointment Review

A Non-Reappointment Review may proceed only on the grounds that the non-reappointment decision was based on one or more of the following:

- The procedures followed to reach the decision materially deviated from prescribed procedures such that doubt is cast on the integrity of the decision not to reappoint;

- The exercise by the faculty member of rights guaranteed by the First Amendment to the United States Constitution, or by Article I of the North Carolina Constitution;

- Discrimination as defined and prohibited by NCSU POL 04.25.05 (Equal Opportunity and Non-Discrimination Policy); or

- Personal malice, which is dislike, animosity, ill-will, or hatred based on personal characteristics, traits or circumstances of an individual that are not relevant to valid university decision making.

3.2 Filing a Petition for a Non-Reappointment Review

A petition for a Non-Reappointment Review must be filed within sixty (60) calendar days of notice of the non-reappointment decision and must state the grounds for the petition—specifically, a statement of the facts to support a claim that the non-reappointment decision was based on one or more of the above-listed grounds in section 3.1. The petition must include the grounds for the petition, specifically, a statement of facts to support a claim that the non-reappointment decision was based on one or more of the above-listed grounds in section 3.1.

3.3 Purpose of the Non-Reappointment Review.

The purpose of reviewing non-reappointment decisions is to determine if the decision resulted from one of the impermissible grounds set forth in section 3.1. The purpose is not to second guess
professional academic judgments based on permissible considerations. A non-reappointment decision cannot be reversed as the result of a review, rather where the petitioner shows by a preponderance of the evidence that the non-reappointment decision was based on one or more of the impermissible grounds listed in section 3.1, the non-reappointment decision may be subject to reassessment.

4. EMPLOYMENT RELATED GRIEVANCES (SECTION 607)

Any faculty member may seek redress through an employment-related grievance pursuant to Section 607 of The Code during the faculty member’s employment at NC State (“Grievance”). The faculty member who seeks review of a decision that adversely affected his/her employment is the grievant. If the grievant is separated from employment while the grievance is pending, the grievance must be dismissed as being administratively closed.

4.1 General Grievances

General Grievances are limited to matters directly related to a faculty member’s employment status and institutional relationship within NC State, provided that:

- The faculty member has been adversely affected in professional or academic capacity, and
- The adverse action is due to an administrator’s decision that is alleged to violate the law, or a university policy, regulation, or rule (PRR).

The administrator who made the decision that adversely affected the faculty member shall be the respondent.

4.2 Post-Tenure Review Grievances

A tenured faculty member may file a Grievance for a post-tenure review decision with an overall finding of “does not meet expectations” based on one or more of the same grounds as for a non-reappointment review (see above-listed bulleted items in section 3.1).

The administrator who made the determination of an overall “does not meet expectations” for a faculty member’s post-tenure review will be the respondent in a post-tenure review grievance. Members of the post-tenure review committee may be called as witnesses by either party.

4.3 Filing a Grievance

A Grievance must be filed within sixty (60) calendar days of the alleged adverse action that is the basis of the Grievance. The Grievance must include the grounds for the Grievance, meaning a statement of facts to support a claim that an administrator’s decision:

- For General Grievances: violated the law, or a university policy, regulation, or rule (PRR) and how the decision adversely affected the grievant; or
• **For Post-Tenure Review Grievances:** was based on one or more of the same grounds as for a non-reappointment review (see above-listed bulleted items in section 3.1)

The Grievance must also include name of the administrator responsible for the alleged improper decision (the respondent). Persons may be named as respondents only if they were active and substantial participants in the decision being grieved. Lastly, the form must include the redress or relief sought.

4.4 Purpose of the Grievance

The purpose of a Grievance is to determine whether the grievant has been adversely affected by an administrative decision under section 4.1 or 4.2. For post-tenure review Grievances, the purpose is not to second guess professional academic judgments based on permissible considerations.

4.5 Non-Grievable Matters.

Issues or actions that are not grievable under this policy include:

- Dissatisfaction with the general application of a university, college or departmental policy, regulation, or rule (PRR);
- Non-renewal or non-extension of an existing fixed term appointment for non-tenure track faculty upon expiration of the term; and
- Complaints, grievances or appeals that are subject to another university procedure or within the jurisdiction of another university committee, (e.g., research misconduct complaints, intellectual property determinations, campus police trespass appeals, Section 603 discharge or sanction cases, etc.).

4.6 Grievances and Discharge/Imposition of Serious Sanctions (Section 603) of The Code

If a grievant is named in a proceeding pursuant to Section 603 of The Code for discharge for cause or imposition of other serious sanction, the Grievance will be dismissed if it relates to the Section 603 proceeding. If the Grievance is unrelated to the Section 603 proceeding, it will be held in abeyance until the conclusion of the Section 603 proceeding. If the Section 603 proceeding results in discharge, the Grievance will be dismissed. If the Section 603 proceeding does not result in discharge, Grievance may proceed.

5. **PROCEDURES FOR GRIEVANCES AND NON-REAPPOINTMENT REVIEWS**

The procedures for Grievances and Non-Reappointment Reviews—including the specific steps in those processes—are contained in this policy’s companion regulation, **NCSU REG 04.25.04 (Faculty Grievance and Non-Reappointment Review Procedures)**. Faculty members interested in pursuing a petition for a Non-Reappointment Review or a Grievance should refer to that regulation.

6. **CHANCELLOR’S DECISION**
The Chancellor shall issue the final decision for any Non-Reappointment Review or Grievance if the matter proceeds to a Non-Reappointment Review or Grievance Panel. While the Chancellor should give appropriate deference to the Panel’s findings and recommendations, the final campus-based decision is the Chancellor’s.

7. REPORT OF THE FACULTY GRIEVANCE/REVIEW COMMITTEE CHAIR

The Faculty Grievance/Review Committee Chair, together with the Chair of the Faculty, shall make an annual report to the Faculty Senate and the Chancellor concerning the Non-Reappointment Review and Grievance process. This report shall summarize, without disclosing specific details, the types of grievances considered, findings by categories and final administrative decisions. As necessary, the Faculty Grievance/Review Committee Chair shall convene a meeting of the Faculty Senate Governance and Personnel Policy Committee and the Faculty Grievance/Review Committee for the purpose of considering any proposed revisions to the Non-Reappointment Review and Grievance procedure for faculty.

8. DELEGATION TO CHANCELLOR

8.1 The Chancellor is authorized to establish regulations to implement this policy, provided the regulations are consistent with the UNC Code or this policy. The Faculty Senate shall be consulted in the review of regulations associated with this policy.

8.2 The Chancellor may grant exceptions to this policy in any case where following the policy would result in substantial unfairness (e.g., if the Chancellor has a conflict of interest, another decision-maker may be designated). Any such exception should be reported to the Faculty Grievance/Review Committee Chair, the Non-Reappointment Review/Grievance Panel Chair, and the parties.
PROPOSED REVISION TO: POL 04.25.05 Equal Opportunity, Non-Discrimination and Affirmative Action

Rationale: Values statement, technical corrections and clarification edits

Consultation Process (provide date of review):

6/4/18 Sheri Schwab authorizes transmittal of PRR for review
6/8/18 General Counsel final review, if changes have been made
6/6/18 Executive Officer with delegated authority to review the PRR
6/12/18 Chancellor’s Cabinet Meeting review/notification (PRR Administrator will complete)
8/13/18 University Council (notification), if applicable (PRR Administrator will complete)
7/19/18 Board of Trustees (approval/notification), if applicable (PRR Administrator will complete)

Authority

Chancellor
Board of Trustees

Title
Equal Opportunity and Non-Discrimination and Affirmative Action Policy

Classification
POL 04.25.05

PRR Subject
Non-Discrimination

Contact Info
Vice Provost for Equal Opportunity and Equity
(919) 515-4559


Related Policies:
NCSU POL 05.25.01 - Faculty Grievance and Non-Reappointment Review Policy
NCSU POL 05.25.03 -- Review and Appeal Processes for E-PA EHRA Non-Faculty Employees
NCSU POL 11.35.01 - Code of Student Conduct
UNC System SHRA Employee Grievance Policy
NCSU REG 02.20.01 – Academic Accommodations for Students with Disabilities
NCSU REG 05.00.02 – Reasonable Accommodations in Employment
NCSU REG 05.25.05 – EHRA Non-Faculty Employee Reviews and Appeals
NCSU REG 11.35.02 -- Student Discipline Procedures
1. **INTRODUCTION**

   NC State is a diverse community that holds a deep commitment to welcoming and supporting all people. All NC State community members are responsible for ethical conduct and for helping build our stature as an inclusive, ethical and respectful institution.

   NC State hereby affirms these values along with a commitment to creating inclusive working and educational environments free from all forms of discrimination, harassment and retaliation.

   NC State recognizes and rewards individuals on the basis of relevant factors such as ability, merit and performance. Educational and employment decisions are to be based on factors that are germane to academic abilities or job performance.

   Discrimination, harassment and retaliation are not only unlawful, they are incompatible with the principles of NC State.

   North Carolina State University (“NC State”) strives to build and maintain an environment that supports and rewards individuals on the basis of relevant factors such as ability, merit, and performance.
POLICY STATEMENT

It is the policy of the State of North Carolina to provide equality of opportunity in education and employment for all students and employees. Educational and employment decisions should be based on factors that are germane to academic abilities or job performance. North Carolina State University (“NC State”) strives to build and maintain an environment that supports and rewards individuals on the basis of relevant factors such as ability, merit, and performance. Accordingly, NC State engages in equal opportunity and affirmative action efforts, and prohibits all forms of unlawful discrimination, harassment, and retaliation (“Prohibited Conduct”) that are based upon a person’s race, as defined by this policy, color, religion, sex (including pregnancy), national origin, age (40 or older), disability, gender identity, genetic information, sexual orientation, or veteran status (individually and collectively, “Protected Status”). Definitions for Additional information as to each Protected Status are included in NCSU REG 04.25.02 (Discrimination, Harassment and Retaliation Complaint Procedure).

SCOPE

This policy applies to all NC State applicants, employees, students, and other individuals who participate in University or University-sponsored programs or activities, and/or who are conducting University business, whether on or off-campus.

The Board of Trustees through the Chancellor has designated NC State’s Office for Institutional Equity and Diversity (“OIED”) as the office to determine whether NC State has an obligation to address allegations of discrimination, harassment, or retaliation that are not part of a university or university sponsored program or activity. The OIED will consider the seriousness of the allegations, the risk of harm involved, whether those involved are members of the University community, whether there is a nexus with the University, and other factors relevant to the impact of the allegations on the University community.

DEFINITIONS

For purposes of this policy, the following definitions apply:

Discrimination is unfavorable treatment with regard to a term or condition of employment, or participation in an academic program or activity based upon age (40 or older), color, disability, gender identity, genetic information, national origin, race, religion, sex (including pregnancy), sexual orientation, or veteran status—a Protected Status. Discrimination includes the denial of a request for a reasonable accommodation based upon disability or religion.

This policy is established in accordance with 41 CFR Part 60 and is implemented in accordance with applicable laws and their amendments, including but not limited to, Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Executive Order 11246, the Age Discrimination in Employment Act of 1975, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Vietnam Era Veterans’ Readjustment Assistance Act of 1974, the Civil Rights Restoration Act of 1988, North Carolina General Statutes Chapters 116 and 126.
2.2.4.2 Harassment is any unwelcome conduct based upon age (40 or older), color, disability, gender identity, genetic information, national origin, race, religion, sex (including pregnancy), sexual orientation, or veteran status—a Protected Status—that either creates a *quid pro quo* situation or a hostile environment. Harassment includes incidents of sexual assault, stalking, and interpersonal or dating violence.

*Note: Incidents of sexual violence may constitute sexual Harassment.*

2.2.4.2.1 *Quid Pro Quo* Harassment occurs when submission to, or rejection of, unwelcome conduct (e.g., sexual advances, requests for sexual favors) by an individual is used as the basis for an employment decision (for employees); or an education decision (for students). It can also occur when an individual believes that he or she must submit to the unwelcome conduct in order to avoid an adverse employment action or to secure a promotion (for employees) or to participate in school program or activity (for students).

*Note: Though *Quid Pro Quo* Harassment typically involves conduct of a sexual nature, it can also result from unwelcome conduct of a religious nature. For example, a supervisor offers a subordinate employee a promotion if the employee joins the supervisor’s religion.*

2.2.4.2.2 *Hostile Environment Harassment* occurs when unwelcome conduct based upon an individual’s age (40 or older), color, disability, gender identity, genetic information, national origin, race, religion, sex (including pregnancy), sexual orientation or veteran status—a Protected Status—is sufficiently severe or pervasive to:

(For Students):

- deny or limit a student’s ability to participate in or benefit from NC State’s programs or activities; or
- create an intimidating, threatening, or abusive educational environment.

(For Employees):

- create an intimidating, hostile, or offensive working environment.

A Hostile Environment is determined by looking at whether the conduct is objectively offensive (i.e., a reasonable person would find it to be) and subjectively offensive (i.e., the person who is the object of the unwelcome conduct finds it to be).

All relevant circumstances are examined as part of this determination, including but not limited to, the type of Harassment (e.g., whether verbal, physical, electronic); the frequency of the conduct, the severity of the conduct, the protected group status—Protected Status—and relationship of the individuals involved, whether the conduct was physically threatening or humiliating, whether the conduct unreasonably interfered with work performance (for employees) or academic performance (for students). When sufficiently severe, a single instance of unwelcome conduct (e.g., including sexual assault) may constitute Hostile Environment Harassment.
2.3-4.3 Retaliation is any adverse action (including intimidation, threats, or coercion relating to an adverse action) against an individual because that individual engaged in a protected activity.

2.4-4.4 Protected activity—Activity includes:

- opposing a practice believed to be filing a complaint that alleges a violation of this policy;
- participating as a witness or party in an investigation, proceeding, or hearing involving a violation of this policy; or
- requesting a reasonable accommodation based on disability or religion.

35. COMPLAINTS

NC State will promptly, thoroughly, and impartially respond to all complaints of Discrimination, Harassment, and Retaliation.

Any individual with a complaint of Discrimination, Harassment or Retaliation should follow the procedure described in NCSU REG 04.25.02 (Discrimination, Harassment and Retaliation Complaint Procedure).

46. POLICY VIOLATIONS and CORRECTIVE MEASURES

Substantiated instances of Discrimination, Harassment, and Retaliation, as defined above, are violations of this policy and will not be tolerated by NC State.

Appropriate corrective measures will be instituted for violations of this policy. Such corrective measures will be designed to stop the Discrimination, Harassment, and/or Retaliation and to prevent future violations. Corrective measures may involve disciplinary action up to and including expulsion (for students) or discharge (for employees).

Disciplinary action for a violation of this policy will be the responsibility of the Office of Student Conduct (for students) and appropriate administrator (i.e. vice chancellor, dean, director, supervisor, etc.) (for employees), in accordance with applicable disciplinary procedures for students or employees.

57. AFFIRMATIVE ACTION

In addition to prohibiting Discrimination, Harassment and Retaliation, NC State maintains works toward the full realization of equal opportunity through an continuing affirmative action program, in accordance with applicable federal and state laws and regulations.

Development of the University’s affirmative action and equal employment opportunity plan, called the Equal Employment Opportunity Plan (EEO Plan the “AA/EEO Plan”) at NC State, is assigned to the Vice Provost for Institutional Equity and Diversity, who serves as the university’s Affirmative Action Officer.
The head of each administrative or academic unit identified in the EEO Plan, and subunits as identified by the Affirmative Action Officer, shall be responsible for working with the Affirmative Action Officer to implement the requirements of the AA/EEO Plan.

All University publications, job advertisements, prime federal contracts and subcontracts, purchase orders, and publicity for University events must state that NC State is an AA/EEO employer. Approved taglines and clauses for these purposes are located on the OIED webpage.

68. STATEMENT FOR PROGRAMS/PUBLICITY

The following statement may be used for programmatic or publicity purposes at NC State:

NC State University promotes equal opportunity and prohibits discrimination and harassment based upon one’s age, color, disability, gender in hiring, employment, and education. NC State provides employment and educational opportunities to all qualified individuals without regard to a person’s race, color, religion, sex, national origin, age (40 or older), disability, gender, gender identity, gender expression, genetic information, national origin, race, religion, sex (including pregnancy), pregnancy status, sexual orientation, or protected veteran status.

79. RESOURCES

Questions concerning this policy may be referred to the Office for Institutional Equity & Diversity, OIED.

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This policy is established in accordance with 41 CFR Part 60 and is implemented in accordance with applicable laws and their amendments, including but not limited to, Title VI and Title VII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Executive Order 11246, the Age Discrimination in Employment Act of 1975, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, the Vietnam Era Veterans’ Readjustment Assistance Act of 1974, the Civil Rights Restoration Act of 1988, North Carolina General Statutes Chapters 116 and 126.
**PROPOSED REVISION TO:** POL 11.35.01 – Code of Student Conduct

**Rationale:** Updates to comply with EEO policy, technical corrections and clarification

**Consultation Process (provide date of review):**

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<thead>
<tr>
<th>Date</th>
<th>Reviewer and Position</th>
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<tbody>
<tr>
<td>5/1/18</td>
<td>General Counsel preliminary review</td>
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<tr>
<td>5/31/18</td>
<td>Thomas Hardiman, Director Student Conduct</td>
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<tr>
<td>6/4/18</td>
<td>VC Michael Mullen &amp; Lisa Zapata, Senior Assoc VC</td>
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<tr>
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<td>General Counsel final review, if changes have been made</td>
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Related Policies:
- UNC Policy Manual 500.2 – Patent and Copyright Policies
- UNC Policy Manual 700.4.2 - Policy on Student Conduct
- UNC Policy Manual 1300.1 – Illegal Drugs
- NCSU POL04.20.05 - Illegal Drugs
- NCSU POL04.25.05 - Equal Opportunity and Non-Discrimination Policy Statement
- NCSU REG01.25.02 – Copyright Infringement – Policy Statement
- NCSU REG01.25.03 - Copyright Regulation - Copyright Implementation Pursuant to Copyright Use and Ownership Policy of the University of North Carolina
- NCSU REG04.05.02 - Campus/Workplace Violence Prevention and Management
- NCSU REG08.00.02 – Computer Use Regulation
- NCSU REG11.35.02 - Student Discipline Procedures
- NCSU REG11.35.03 - Graduate Student Discipline Procedures
- NCSU REG11.55.06 - Recognized Student Organizations within the Division of Academic and Student Affairs (DASA): Regulation for Undergraduate Student Leadership
- NCSU REG11.55.07 – Registered Student Organizations: Regulation for Undergraduate Student Leadership, Membership, and Registration

Additional References:
- NC Gen. Stat. § 14-269.2
- NC Gen. Stat. § 143-166.1
- NC Gen. Stat. § 90-86 through § 90-113.8
1. INTRODUCTION

All students at North Carolina State University (NC State) are responsible for conducting themselves in a manner that helps enhance an environment of learning in which the rights, dignity, worth, and freedom of each member of the academic community are respected. Violations of campus or University policies, rules or regulations, or federal, state, or local law may result in a violation of the Code of Student Conduct and imposition of sanctions.

This Code of Student Conduct (Code) establishes the expectations for student conduct in the university community. The Code, therefore, proscribes the types of behavior that adversely affects the university community, and the resulting actions that may be taken to both educate students about behavioral expectations and to protect NC State’s community. This Code and its accompanying regulation, NCSU REG 11.35.02 (Student Discipline Procedures) describe the process to be followed when a student has been charged with a violation of the Code.

NC State embraces and strives to uphold the freedoms of expression and speech guaranteed by the First Amendment of the U.S. Constitution and the North Carolina Constitution. The university has the right under certain circumstances to regulate the time, place, and manner of exercising these and other constitutionally protected rights.

2. DEFINITIONS

The terms defined in the Student Discipline Procedures (Procedures) shall have the same meaning when used in the Code and are incorporated here by reference.

3. AUTHORITY FOR STUDENT DISCIPLINE

The Chancellor has the authority to establish procedures and impose disciplinary action on a student or student group/organization. The Chancellor may delegate such authority to University administrators or other officials.

4. DEFINITION OF MISCONDUCT

The definition of misconduct at NC State is set forth in this Code in order to give students general notice of prohibited conduct and is not designed to define misconduct in exhaustive terms.

5. SCOPE

5.1 Locations Covered

The Code applies to conduct that occurs on University premises, at University-sponsored activities, and to off-campus conduct (whether in NC, another state or a foreign country) that adversely affects the university community, its mission, programs, the pursuit of its objectives, or poses a serious risk of danger to, or disruption or interference with, a member of
the university community. The Vice Chancellor and Dean of Academic and Student Affairs shall determine whether the Code applies to off-campus conduct.

5.2 Persons Covered

The Code applies to all students as defined in the Procedures. The university may initiate a disciplinary action against a student alleged to have violated the Code or other applicable University policies, regulations or rules, or federal, state or local law regardless of the actions taken by civil or criminal authorities or private litigants. This code also applies to students outside a specific term, such as summer, and may cover those not currently enrolled but still eligible to seek a degree.

5.3 Violations of Law and Disciplinary Action

Students may be accountable to the university and/or to criminal or civil authorities for acts that constitute violations of law and of this Code. The university has the right to proceed with its disciplinary procedures regardless of whether a criminal investigation/charges are pending, and regardless of whether criminal charges involving the same incident have been dismissed, resolved, or reduced. However, a student who faces criminal charges or is the subject of a criminal investigation may choose to accept interim sanctions, which may include suspension and/or removal from University housing facilities, while the criminal proceeding is pending. The interim sanctions will be imposed by the Director without a hearing or ruling on the charges under the Code, in order to meet the needs of the campus community, but while protecting the respondent from creating a record that may be used against him or her in criminal court. Once the criminal matter has been adjudicated against a student (including prayer for judgment), the university’s disciplinary process may proceed.

5.4 Student Groups or Organizations

5.4.1 A student group/organization and its officers may be held collectively or individually responsible for violations of the Code. Student groups/organizations may be charged with violations of the Code without regard to whether members of such groups/organizations are individually charged with violations arising from the same incident.

5.4.2 A position of leadership in a student group/organization comes with an expectation of responsibility. Student officers or leaders cannot knowingly permit, condone or acquiesce in any violation of the Code by the group/organization.

5.4.3 The officers or leaders or any identifiable representative for a student group/organization may be required by the Director to take appropriate action designed to address the violation of the Code or to prevent its recurrence by the student group/organization. Failure to comply with the Director’s directive shall be considered a violation of the Code, both by the officers, leaders, or representative for the student group and by the student group itself.

5.5 Additional Standards
Students in certain categories may also be subject to other University behavioral standards. For example, students who are enrolled in the Graduate School, the College of Veterinary Medicine, student athletes, ROTC, or students who live in university housing may be subject to additional standards of behavior.

5.6 Howl for Help: Health and Safety Intervention

The university encourages students to engage in responsible bystander behaviors. In cases of intoxication, overdose, and/or alcohol poisoning, the university’s primary concern is the health and safety of those involved. No student seeking medical treatment for an alcohol or other drug overdose will be charged with specific violations of the Code related to the possession and/or consumption of alcoholic beverages or drugs. For more information on this program, please visit: https://alcohol.dasa.ncsu.edu/howl/

6. STANDARDS OF CLASSROOM BEHAVIOR

The primary responsibility for managing the classroom environment, whether in-person or online, rests with the faculty. Students who engage in any unlawful acts or behaviors which result in disruption of a class, may be directed by the faculty member or University Police to leave the class for the remainder of the class period. If a disruptive student refuses to leave when the faculty member tells him or her to do so, the faculty member should leave the classroom and call University Police to remove the student. This provision regarding classroom behavior is not to be used to punish students with differing academic interpretations of course content or viewpoint, but to address behavior that is disruptive within the educational environment, including impact to other students.

7. REPORTS OF MISCONDUCT

7.1 Any person may report alleged misconduct by a student or a student group/organization to the Office of Student Conduct. Misconduct should be reported in as timely a manner as possible. Failure to report misconduct in a timely manner can affect the ability to gather the information needed to assess whether the conduct would constitute a violation of the Code and to support the filing of a charge pursuant to the Code. In some cases, a delay in reporting may result in no charges being filed against the student or student group/organization.

7.2 Any person who reports possible misconduct by a student or a student group/organization is a “complainant,” for purposes of initiating an investigation of the reported misconduct, however, a designated University official (who may or may not have been the original “complainant”) serves as the “complainant” at any hearing.

7.3-7.2 Misconduct by a student or a student group/organization occurring within university housing facilities should be reported to University Housing.

7.4-7.3 Persons wishing to withdraw a report of misconduct against a student or student group/organization must do so in writing. The university
specifically reserves the right to pursue charges against a student or student group/organization for violations of the Code that threaten the safety or well-being of the campus community, constitute violent behavior as defined in NCSU REG04.05.02 – Campus/Workplace Violence Prevention and Management, or any other behavior that adversely affects the university or its educational programs or mission.

8. ACADEMIC MISCONDUCT

All members of the University community, students, faculty and other employees, have the responsibility to report academic misconduct to the appropriate authority. Faculty members must undertake a threshold responsibility for such traditional safeguards as examination security and proctoring and should clearly communicate their academic expectations in the course syllabus. The use of the Pack Pledge, “I have neither given nor received unauthorized aid on this test or assignment,” on all syllabi, assignments, examinations, or other academic evaluations is encouraged. Similarly, faculty members should familiarize themselves with the procedures for addressing academic misconduct. The procedures for reporting academic misconduct can be found in NCSU REG11.35.02 – Student Discipline Procedures.

Definitions regarding academic misconduct are set forth in writing in order to give students general notice of prohibited conduct. They should be read broadly and are not designed to define academic misconduct in exhaustive terms. Attempts to commit acts prohibited by the Code may also be addressed through the conduct process. If a student is in doubt regarding any matter relating to the standards of academic integrity in a given course or on a given assignment, that student must consult with the faculty member responsible for the course before presenting the work.

8.1 Aiding and Abetting

Aiding and abetting others to cheat or plagiarize is as detrimental to the scholarly community as engaging in the acts themselves. Aiding and abetting others to cheat or plagiarize includes, but is not limited to, the following:

(a) Giving unauthorized assistance to another or others during a test or evaluation;

(b) Posing as another student in order to meet a course or graduation requirement;

(c) Providing specific information about a recently given test, examination, or assignment to a student who thereby gains an unfair advantage in an academic evaluation;

(d) Providing aid to another person, knowing such aid is expressly prohibited by the faculty member, in the research, preparation, creation, writing, performing, or publication of work to be submitted for academic evaluation;

(e) Permitting one’s academic work to be represented as the work of another; or
(f) Sharing or distributing academic materials, including class notes, in violation of the [UNC Policy Manual 500.2 – Patent and Copyright Policies](https://example.com) or [NCSU REG01.25.02 – Copyright Infringement – Policy Statement](https://example.com).

8.2 Cheating

Cheating is the giving, taking, or presenting of information or material by a student that unethically or fraudulently aids oneself or another person on any work which is to be considered in the determination of a grade or the completion of academic requirements or the enhancement of that student’s record or academic career. Cheating includes, but is not limited to, the following actions:

(a) Copying from someone else’s assignment, examination, or other academic exercise;

(b) Possessing, buying, selling, removing, receiving, or using, at any time or in any manner not prescribed by the faculty member, any information related to an instrument of academic evaluation;

(c) Using materials, equipment, or assistance in connection with an assignment, examination, or other academic exercise which have not been authorized by the faculty member, including but not limited to, notes, calculator, or other technology;

(d) Obtaining or attempting to obtain, in a dishonest manner, any material relating to a student’s academic work;

(e) Working with another or others in completing an assignment, examination, or other academic exercise when the faculty member has required independent and unaided action;

(f) Attempting to influence or change an academic evaluation, grade, or record by unfair means;

(g) Permitting another individual to substitute for one’s self in an academic evaluation;

(h) Marking or submitting an examination or evaluation material in a manner designed to deceive the grading system;

(i) Failing to comply with a specific condition of academic integrity which has been clearly announced in a particular course;

(j) Submitting, without prior permission of the faculty member, any work by a student which has at any time been submitted in identical or similar form by that student in fulfillment of any other academic requirement at any institution;

(k) Submitting of material in whole or part for academic evaluation that has been prepared by another individual(s);
(l) Submitting data which have been altered or contrived in such a way as to be deliberately misleading; or

(m) Providing false information to the University in any manner to achieve an unfair advantage, enhance one’s record, or complete a requirement.

8.3 Destruction or Removal of Academic Materials

The destruction or removal of academic materials denies access to, and prevents the ability to develop the full potential of, scholarly resources. Prohibited acts under this section include, but are not limited to, the following:

(a) Removing or attempting to remove, destroy, steal, or make inaccessible library or other academic material without authorization; or

(b) Willfully damaging the academic work or efforts of another.

8.4 Plagiarism

Plagiarism is the use or close imitation of the language and thoughts of another and the representation of the other’s work as their own. The act of submitting work for evaluation or to meet a requirement is regarded as assurance that the work is the result of the student’s own thought and study, produced without assistance, and stated in that student’s own words, except as quotation marks, references, or footnotes acknowledge the use of other sources. Any ideas or materials taken from another source for either written or oral use must be fully and correctly acknowledged. Submission of work used previously must first be approved by the faculty member. Plagiarism includes, but is not limited, to the following actions:

(a) Representing the work of others as his or her own; or

(b) Submitting written materials without proper attribution or acknowledgment of the source.

9. SANCTIONS FOR ACADEMIC MISCONDUCT

Sanctions for academic misconduct result in the creation of a disciplinary file for individuals or groups. Sanctions are imposed to:

(a) Define a student or organization’s status at the university following a finding of responsible for a violation;

(b) Serve as a clear statement about University standards and expectations;

(c) Educate students on the effects of their behavior; and

(d) Attempt to affect a change in that behavior in the future.
Academic misconduct that involves advance planning, collaboration, falsification of papers, forms or documents, actual or potential harm to other students, or other aggravating circumstances may result in suspension or expulsion from the university. In addition, a student may be suspended (or expelled) if further academic misconduct is committed while he or she is on academic integrity probation. Factors or circumstances affecting sanctions shall be considered on a case by case basis.

9.1 Academic Integrity Probation

A student found responsible for academic misconduct may be placed on academic integrity probation for the remainder of the student’s academic career. In addition, one or more of the sanctions listed below may be imposed.

9.2 Reduction in Grade

A reduction in grade on the assignment, examination, or academic exercise on which the violation occurred.

9.3 No Credit

No credit on the assignment, examination, or academic exercise on which the violation occurred, and/or no credit for the course.

9.4 Educational Exercises

Participation in an educational exercise regarding academic integrity.

9.5 Suspension

Suspension is a separation from the university for a specified period of time, after which the student may be eligible to return. While suspended, the student shall not participate in any University-sponsored activity and will be trespassed from University property. Exceptions to this trespass may be granted by the Director of the Office of Student Conduct based on the written petition of the student and for good cause. In cases where the student will complete graduation requirement during the current semester, suspension is to take effect immediately. In addition, graduating students may have a disciplinary notation placed on their transcript or have their transcript withheld for the period of the suspension. In cases where a student will complete graduation requirements in either summer session I or II, the suspension period will include both summer sessions. Notations of the suspension will appear on the student’s transcript. Suspension notations on transcripts may be removed at a later date upon student petition to the Vice Chancellor and Dean of Academic and Student Affairs. However, a disciplinary file indicating suspension will be maintained by the Office of Student Conduct on a permanent basis. The student’s name will be included in the UNC system database for suspended/expelled students.

9.6 Expulsion
Expulsion may be imposed in the most severe cases of academic misconduct. Expulsion is a recommendation that must be approved by the Vice Chancellor and Dean of Academic and Student Affairs and is the permanent separation of the student from the university, unless at a later date the Chancellor concludes on the basis of the former student’s petition and any supportive documentation that he or she should be approved for reinstatement at NC State. When expelled, the student shall no longer participate in any University-sponsored activity and will be trespassed from University premises. A disciplinary file indicating expulsion will be maintained by the Office of Student Conduct on a permanent basis and will result in a permanent transcript notation. The student’s name will be included in the UNC system database for suspended/expelled students. Expulsion precludes enrollment at any UNC constituent institution.

9.7 Additional Sanctions

Additional sanctions not listed above may be imposed. These include, but are not limited to, required counseling, behavioral assessments, research and reflective writing assignments, as well as other non-academic sanctions listed in the Code. For graduate students, in addition to the sanctions imposed above, other sanctions may apply if the Dean of the Graduate School or the Dean of the College of Veterinary Medicine, as applicable, determines that the graduate student is subject to the policies and procedures established for the Graduate School or the College of Veterinary Medicine.

10. NON-ACADEMIC MISCONDUCT

Behavior that is subject to disciplinary action under the Code includes alleged violations of federal, state or local law that threaten the safety or well-being of the campus community, any act that constitutes violent behavior as defined in NCSU REG04.05.02 – Campus/Workplace Violence Prevention and Management, and any other behavior that adversely affects the University or its educational programs or mission. Attempts to commit acts prohibited by the Code may also be addressed through the conduct process. All members of the university community, students, faculty and other employees, have the responsibility to report non-academic misconduct.

Examples of behavior that will be subject to disciplinary action include:

10.1 Alcohol Violations

(a) Possession and/or consumption of alcoholic beverages by a person under the age of 21;

(b) Possession or consumption of any alcohol beverage inside any University Athletic facility except on such occasions as designated by the Chancellor;

(c) Aiding and abetting the possession and/or consumption of alcoholic beverages by a person who is under the age of 21;
(d) Consumption of any alcoholic beverages where it is not legally permissible to do so, regardless of age;

(e) Any other violations of NCSU POL 04.20.02 – Alcohol Policy; or

(f) Conduct that could form the basis of any charge relating to a violation of North Carolina laws regarding the purchase, possession, manufacture, and consumption of alcoholic beverages or driving while under the influence.

10.2 Computer and Network Abuse

(a) Theft or misuse of University Information Technology Resources (IT) or State Property, including violations of NCSU REG08.00.02 – Computer Use Regulation;

(b) Violation of NCSU REG01.25.02 – Copyright Infringement – Policy Statement;

(c) Unauthorized entry into or transfer of an electronic file;

(d) Use of another person’s computing identification and/or password without authorization or permission;

(e) Use of University IT Resources to interfere with the work of another student, faculty member, or other NC State employee;

(f) Use of University IT Resources to send obscene or harassing messages; or

(g) Use of University IT Resources to interfere with normal operations of the NC State computing system.

10.3 Creating a Safety Hazard

Any act that intentionally or recklessly creates a safety hazard, including but not limited to:

(a) Starting or attempting to start a fire or failing to exit a building when a fire alarm is sounded;

(b) Tampering with or misusing fire and/or other life safety equipment, including fire alarms, closed circuit televisions, or elevators;

(c) Failing to comply with campus traffic laws while on a pedestrian conveyance (bicycle, skateboard, scooter, etc.); or

(d) Throwing objects from an elevated position in the direction of persons below.

10.4 Damage to Property
Engaging in an act that intentionally or recklessly damages, destroys, or defaces property of the university or another.

10.5 Disorderly Conduct

(a) Engaging in conduct that disrupts class including, but not limited to, the use of cell phones or other electronic devices for voice or text communication, unless permitted by the faculty member;

(b) Conduct that disrupts, interrupts or attempts to force the cancellation of any University-sponsored activity or authorized non-University activity, including educational activities, meetings, ceremonies, scheduled events, essential University processes, and authorized solicitation activities;

(c) Obstruction that unreasonably interferes with freedom of movement or safe passage, either pedestrian or vehicular, on University premises;

(d) Conduct that is lewd or indecent; or

(e) Any unauthorized use of electronic or other devices to make an audio or video record of any person without his/her prior knowledge, or without his/her consent when such a recording is likely to cause injury or distress.

10.6 Disruption of the Student Conduct Process

(a) Attempting to discourage an individual’s proper participation in, or use of, the conduct system;

(b) Attempting to influence the impartiality of the hearing officer, conduct board member, or appeal administrator;

(c) Harassment and/or intimidation of a hearing officer, conduct board member, or appeal administrator prior to, during, and/or after a student conduct proceeding; or

(d) Influencing or attempting to influence another person to commit an abuse of the conduct system.

10.7 Drug Violations

(a) Illegal possession or use of controlled substances as defined by the North Carolina General Statutes § 90-86 through § 90-113.8;

(b) Manufacturing, selling, or delivering any controlled substance or possession with intent to manufacture, sell or deliver any controlled substance;

(c) Misuse of any legal pharmaceutical drugs;
(d) Knowingly breathe or inhale any substance for the unlawful purpose of inducing a condition of intoxication; or

(e) Possession of drug-related paraphernalia, including but not limited to, all equipment, products and materials of any kind that are used to facilitate, or intended or designed to facilitate, violations of 10.7(a) of this Policy or **NCSU POL04.20.05 – Illegal Drugs**.

Further information regarding drug violations is discussed in **NCSU POL04.20.05 – Illegal Drugs** and through **UNC Policy Manual 1300.1 – Illegal Drugs**.

10.8 Failure to Comply

(a) Failing to comply with the directions of University employees, including University Police in performance of their duties;

(b) Failing to submit identification upon request to duly authorized and properly identified University officials; or

(c) Failing to comply with the sanctions imposed under this Code.

10.9 Fireworks

Unauthorized possession or use of fireworks or explosive device on University premises.

10.10 Hazing

Any activity related to organizational membership or potential membership that intentionally, recklessly, or negligently humiliates, degrades, abuses, or otherwise creates a risk of mental or physical harm or discomfort, or unreasonably interferes with a student’s academic activities or successes. Consent or lack of intent are not defenses to charges under this Section.

10.11 Harassment and Discrimination

(a) No student shall threaten, coerce, harass, or intimidate another person or identifiable group of persons, **based upon membership in a protected class as prescribed in a manner that is unlawful or in violation of any University policy, while on University Premises or at University-Sponsored Activities based in whole or in part upon any of the protected statuses included in NCSU POL 04.25.05 (Equal Opportunity and Non-Discrimination Policy)**.

(b) No student shall engage in **unlawful discrimination or harassment** as defined by NCSU POL 04.25.05 (Equal Opportunity and Non-Discrimination Policy). **Unlawful harassment includes conduct that creates a hostile environment in that it is directed toward a particular person or persons, based in whole or in part upon any of the protected statuses included in NCSU POL 04.25.05 (Equal Opportunity and Non-Discrimination Policy), unwelcome, severe or pervasive, objectively offensive, and so unreasonably interferes with the target person’s academic pursuits**.
or participation in University-Sponsored Activities as to effectively deny equal access to the University’s resources and opportunities. Charges of sexual harassment are covered separately under section sections 10.14 and 10.15 of this policy.

In determining whether conduct violates these provisions, all relevant facts and circumstances shall be considered. Care must be exercised in order to preserve freedoms of speech and expression, as articulated in current legal standards. Advice should be sought from the Office of General Counsel and the Office of Institutional Equity and Diversity, as appropriate.
10.12 Infliction or Threat of Bodily Harm

(a) Inflicting physical injury upon another;

(b) Placing another in fear of, or at risk of, physical injury or danger; or

(c) Intentionally or recklessly acting in a manner that creates a substantial risk of bodily harm to another.

10.13 Providing False Information

(a) Intentionally initiating or causing to be initiated any known false report, warning or threat of fire, explosion or other emergency;

(b) Forgery, alteration, or misuse of any University document, records, or instrument of identification;

(c) Furnishing false information, oral or written, to any University official, faculty or staff member, or office; or

(d) Possession or use of an instrument of identification that is not one’s own or is fictitious or altered.

10.14 Relationship or Interpersonal Violence

Relationship or interpersonal violence includes Dating Violence, Domestic Violence, and Stalking. Relationship or interpersonal violence occurs when one person in a social relationship of a romantic or an intimate nature uses abuse to maintain power over a partner. Abusive behaviors can be physical or emotional, including but not limited to, threats of self-harm or harm to others, pervasive and derogatory name calling, belittling, isolation, engaging in sexual acts while in a dating or domestic relationship when one of the individuals does not consent.

(a) **Dating Violence** is conduct arising out of a social, personal, romantic or intimate relationship or a dating relationship that: inflicts physical injury upon another person; or is a pattern of coercive behavior that is used by one person to gain power and control over another. It may include the use of physical and sexual violence, verbal and emotional abuse, or any conduct that places another in far of, or at risk of, physical injury or danger.

(b) **Domestic Violence** is conduct arising out of a personal, romantic or intimate relationship where the parties are current or former spouses, persons who live together or have lived together, have child in common, are current or former household members that: inflicts physical injury upon person fitting this definition; or is a pattern of coercive behavior that is used by one person to gain power and control over another. It may include the use of physical and sexual violence, verbal and emotional abuse, or any conduct that places another in fear of, or at risk of, physical injury or danger.

(b) **Domestic Violence** is conduct that arises out of a personal, romantic or intimate relationship where the parties are current or former spouses, persons who live together or have lived together,
persons who have one or more children in common, or are current or former household members, and inflicts physical injury upon a party to the relationship or shows a pattern of coercive behavior that is used by one person to gain power and control over another. It may include the use of physical and sexual violence, verbal and emotional abuse, or any conduct that places another in fear of, or at risk of, physical injury or danger.

(c) Stalking is engaging in a course of conduct directed at a specific person, whether in the context of a social or intimate relationship or otherwise, that would cause a reasonable person to feel fear for their safety or safety of others or suffer substantial emotional distress. Stalking, including cyber stalking, may include, for example, non-consensual communication, including in-person communication or contact, surveillance, telephone calls, voice messages, text messages, email messages, social networking site postings, instant messages, postings of pictures or information on websites, written letters, gifts or any other communications that are undesired and/or place another person in fear of, or at risk of, physical injury or danger.

10.15 Sexual Misconduct

Sexual Misconduct includes:

(a) Sexual Harassment, as defined in NCSU POL 04.25.05 (Equal Opportunity and Non-Discrimination Policy). Sexual harassment may include, for example, unwelcome sexual advances and sexual favors. Sexual harassment also includes any acts of sexual violence.

(b) Sexual Exploitation, which is taking sexual advantage of another person without consent, and includes, but is not limited to, causing or attempting to cause the incapacitation of another person in order to gain a sexual advantage over the other person; causing the prostitution of another person; recording, photographing or transmitting identifiable images of private sexual activity and/or the intimate parts (including genitalia, groin, breasts or buttocks) of another person; voyeurism and indecent exposure, and other sexual offenses, and allowing third parties to observe private sexual acts.

(c) Sexual Contact (without consent), which is the intentional touching of a person’s intimate parts (including genitalia, groin, breast or buttocks or clothing covering any of those areas); or the deliberate touching of another person with one’s intimate parts; or using force to cause a person to touch his/her own or another person’s intimate parts.

(d) Sexual Intercourse (without consent), which is the penetration (anal, oral or vaginal) of a person by a penis, tongue, finger or an inanimate object; or

(e) Retaliation (including threats, harassment, intimidation, coercion) against a person because he/she filed a complaint alleging sexual misconduct, relationship or interpersonal violence, including dating violence, domestic violence, or stalking or participated in an investigation or procedure involving charges of sexual misconduct, relationship or interpersonal violence, including dating violence, domestic violence, or stalking.
10.16 Theft

(a) Stealing or attempting to steal another’s property, money or services;

(b) Knowingly possessing, purchasing, or exchanging stolen or embezzled property, money or services;

(c) Unauthorized use or access to private or confidential information in any medium; or

(d) Unauthorized possession, duplication, or use of keys or card access to any University premises.

10.17 Trespass

Unauthorized entry to University premises, including intruding upon, forcibly entering, or otherwise proceeding into unauthorized areas of University premises, or the residential space of another without permission.

See NCSU REG 04.05.01 – Trespassing on University Property.

10.18 Unauthorized Use of Property

Attempted or actual use of property of NC State, property of a University community member, or other personal or public property without proper authorization, or in a manner for which the property was not intended.

10.19 Violation of University Policies, Regulations, or Rules

Violation of any written policies, regulations, or rules of the University, as adopted by the university and as may be amended from time to time.

10.20 Weapons

(a) Illegal or unauthorized possession of weapons on University premises.

(b) Possession or use of weapons in any manner that harms, threatens, or causes fear to others.

11. SANCTIONS

Sanctions in this section result in the creation of a disciplinary file for individuals or groups. Sanctions are imposed to:

(a) Define a student or organization’s status at the university following a finding of responsible for a violation;
Misconduct that involves substantial theft or fraud, significant physical, emotional, or mental damage to a person, significant property damage, Harassment, Sexual Misconduct, Relationship or Interpersonal Violence, including Dating Violence, Domestic Violence, and Stalking, or actions that create a substantial risk of bodily harm may result in suspension or expulsion from the university. Sanctions for drug-related misconduct are governed by **NCSU POL04.20.05 – Illegal Drugs**.

Mitigating or aggravating factors or circumstances affecting sanctions shall be considered prior to imposing a sanction. Factors to be considered may include, but are not limited to: the nature of the misconduct, a student’s demonstration of insight for his or her misconduct, present demeanor and attitude, past disciplinary record of the student, the importance of the equitable treatment for similar offenses, community service or assistance related to the misconduct, the nature of the misconduct, as well as the degree of any damage, injury, or harm resulting from the misconduct, and other appropriate circumstances.

The Office of Student Conduct may upon initial review of the charges and accompanying narrative determine whether, if proved, the misconduct could result in sanctions of suspension or expulsion and schedule a hearing accordingly.

One or more of the sanctions listed below may be imposed for **non-academic misconduct**:

11.1 Written Warning

A Written Warning is a disciplinary reprimand that serves as notice that continuation or repetition of prohibited conduct may be cause for additional disciplinary actions.

11.2 Disciplinary Probation

Disciplinary Probation is a pre-suspension status. A student may be placed on disciplinary probation for a period no less than the remainder of the current semester up to the remainder of his or her academic career. If found responsible for a violation while on disciplinary probation, a student may face more severe sanctions up to and including suspension or expulsion.

11.3 Suspension

Suspension is a separation from the university for a specified period of time after which the student may be eligible to return. While suspended, the student shall not participate in any University-sponsored activity and will be trespassed from...
University premises. Exceptions to this trespass may be granted by the Director, Office of Student Conduct based on the written petition of the student and for good cause. The student’s name will be included in the UNC System database for suspended/expelled students. In cases where the student will complete graduation requirement during the current semester, suspension is to take effect immediately. In addition, graduating students may have a disciplinary notation placed on their transcript or have their transcript withheld for the period of the suspension. In cases where a student will complete graduation requirements in either summer session I or II, the suspension period will include both summer sessions. Notations of the suspension will appear on the student’s transcript. Suspension notations on transcripts may be removed at a later date upon student petition to the Vice Chancellor and Dean of Academic and Student Affairs. However, a disciplinary file indicating suspension will be maintained by the Office of Student Conduct on a permanent basis.

11.4 Expulsion

Expulsion is a recommendation that must be approved by the Vice Chancellor and Dean of Academic and Student Affairs and is a permanent separation of the student from the university, unless at a later date the Chancellor concludes on the basis of the former student’s petition and any supportive documentation that he or she should be approved for reinstatement at NC State. When expelled, the student shall no longer participate in any University-sponsored activity and will be trespassed from University premises. A disciplinary file indicating expulsion will be maintained by the Office of Student Conduct and will result in a permanent transcript notation. The student’s name will be included in the UNC System database for suspended/expelled students. Expulsion precludes enrollment at any UNC constituent institution.

11.5 Removal from University Housing

Residents of University housing facilities found responsible for violations of this code may be removed from University housing facilities. Removal from University housing facilities may be for a period no less than the remainder of the current semester up to the remainder of the student’s academic career. The duration of any removal and/or trespass from University housing facilities is at the discretion of the Director of University Housing. All costs incidental to the removal from the University housing facility are the responsibility of the student. Students subject to removal from a University housing facility will be trespassed from entering all University housing facilities. Exceptions to this trespass may be granted by the Director of University Housing based on the written petition of the student and for good cause.

11.6 Restriction of Privileges

Restriction of privileges may be applied when the student’s violation(s) are related to the benefit that one receives as a student at NC State. Examples of privileges that may be restricted include, but are not limited to: attendance at University athletic events, use of Carmichael Complex, visitation in University housing facilities, or participation in intercollegiate athletic events. Some exceptions may be made to ensure access to primary University services such as food services, health care, or academic resources.
11.7 Additional Sanctions

Additional sanctions not specifically listed above may be imposed. Such sanctions, where appropriate, may include but are not limited to: service or research projects, required counseling, required reflective writing assignments, behavioral assessments, participation in special educational programs, restitution for damage to or destruction of property, relocation to another room or residence with coordination of appropriate University staff, behavioral contracts, trespass or no contact orders, etc. Additional group or organizational sanctions may include revocation or denial of registration or recognition.

12. INTERIM ACTIONS

In certain circumstances, NC State may take one or more interim actions to safeguard the university community before a student conduct process begins or is completed. These interim actions may be imposed effective immediately, without prior notice, when, in the university’s judgment, there is a need to implement an individualized response based on the status of the student, the seriousness of the alleged violation(s) of the Code and/or the potential for an ongoing threat or disruption to the University community. The university may take interim actions as follows:

12.1 Extraordinary Measure: Interim Suspension

An extraordinary measure in the form of an interim suspension is a diversion from the regular disciplinary process, but may be necessary to ensure the safety and well-being of the campus community. Students subjected to an interim suspension will be accorded a hearing as provided for in the Procedures.

12.1.1 A student may be suspended on an interim basis, if the student:

(a) Poses an ongoing threat of disruption of, or interference with, the normal operations of the university;

(b) Poses a threat of causing physical harm to others or of placing others in fear of imminent danger;

(c) Poses a threat of causing significant property damage;

(d) Threatens the safety or well-being of the campus community;

(e) Has been charged with a violation of alleged to have violated NCSU POL.04.20.05 – Illegal Drugs; or

(f) Has been charged with alleged to have violated university policy regarding Sexual Misconduct, Relationship or Interpersonal Violence, including Dating Violence, Domestic Violence and Stalking, and there is a need to separate the respondent from campus.
12.2 Other Interim Actions

The university may take interim actions other than suspension to ensure the safety and well-being of the campus community including, but not limited to, “no contact” orders, relocation in University housing facilities, registration holds, and adjustments to class schedules. Any interim actions taken may not be used as evidence to support charges under the Code.

13. INTERPRETATIONS AND REVIEW

13.1 Any question of interpretation or application of the Code will be referred to the Vice Chancellor and Dean of Academic and Student Affairs for final determination.

13.2 The Code shall be reviewed every three (3) years under the direction of the Director and in consultation with other campus units as appropriate.
**PROPOSED REVISION TO:** POL 05.15.01 – Employees Exempt from the State Human Resources Act (EHRA) Policy

**Rationale:** At the Chancellor’s discretion, two edits are being recommended for Board of Trustees approval regarding method of discharge for cause notification (Section 4.3), and the transfer of leave from other institutions (Section 8.2.2).

**Consultation Process (provide date of review):**

6/12/18   AVC Marie Williams authorizes transmittal of PRR for review
6/12/18   General Counsel review
6/13/18   Chancellor Woodson approves recommended revisions
8/13/18   University Council (notification), if applicable *(PRR Administrator will complete)*
7/19/18   Board of Trustees (approval/notification), if applicable *(PRR Administrator will complete)*

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**Policies, Regulations and Rules**

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**Related Policies:**

- UNC Code, Appendix I.C - Personnel Policies
- UNC Policy 300.2.1 - Employees Exempt from the State Personnel Act
- UNC Policy 300.2.10 - Faculty Community Service Leave
- UNC Policy 300.1.1 - Senior Academic and Administrative Officers
- UNC Policy 300.4.2 – Employment of Related Persons
- UNC Policy 300.5.1 – Political Activities of Employees
- UNC Policy 1000.2.2 - Waiver of Tuition and Fees for Faculty and Staff
- NCSU POL04.20.06 - Interpersonal Relationships among Faculty, Staff and Students
- NCSU POL08.00.01 - Computer Use Policy
1. SCOPE OF POLICY AND DEFINITIONS OF POSITIONS

1.1 Scope of Policy

1.1.1 Coverage

Positions Exempt from the State Personnel Act (EHRA positions) are those positions that are not subject to the State Personnel Act and are classified in one of four categories: 1) EHRA Professional, 2) Faculty, 3) Senior Academic and Administrative Officer Tier-I (SAAO Tier-I), or 4) Senior Academic and Administrative Officer Tier-II (SAAO Tier-II). University students who receive stipends are not covered by this policy.

1.1.2 Scope

1.1.2.1 EHRA Professional: This policy (POL05.15.01) applies to all permanent EHRA Professional employees.

1.1.2.2 Faculty: This policy does not apply to academic year (9-month) or fiscal year (12-month) faculty, but for Section 2.4 which applies to all faculty and Section 8 which applies to fiscal year (12-month) faculty only. NCSU POL05.20.01 - Appointment, Reappointment, Promotion and Permanent Tenure contains the other applicable policies for faculty.

1.1.2.3 SAAO Tier-I: Sections 2.4, 6, 7, 8.2.1.2, 8.2.3, 8.2.4, 8.3, 8.5, 8.6 and 9 of this policy (POL05.15.01) apply to SAAO Tier-I positions. In addition, Chapter III-A of the Administrative Manual of The University of North Carolina applies to SAAO Tier-I employees.

1.1.2.4 SAAO Tier-II: Sections 2.4, 3, 4, 5, 6, 7, 8.2.1, 8.2.3, 8.2.4, 8.3, 8.5, 8.6, and 9 of this policy (POL05.15.01) apply to SAAO Tier-II positions. In addition, Chapter III-A of the Administrative Manual of The University of North Carolina applies to SAAO Tier-II employees.
1.1.2.5 Postdocs: This policy does not apply to postdoctoral scholars, who are covered by NCSU REG10.10.08 - Postdoctoral Scholars.

1.2 Definitions of Positions

1.2.1 EHRA Professional:

1.2.1.1 Permanent EHRA Professionals: Employees not subject to the State Personnel Act (N.C.G.S. Chapter 126) and who are not: (1) faculty subject to institutional tenure regulations; (2) employees within administrative categories of employment subject to N.C.G.S. § 116-11(4), N.C.G.S. §116-11(5), or N.C.G.S. § 116-14; (3) positions within the "physicians or dentists" category under N.C.G.S. § 126-5; and (4) University students or postdocs who are employed incident to their status as students or postdocs, as in graduate teaching assistantships or work-study positions.

1.2.2 Faculty: Employees covered by NCSU POL05.20.01 - Appointment, Reappointment, Promotion and Permanent Tenure.

1.2.3 Senior Academic and Administrative Officer Tier-I: Chancellor [N.C.G.S. 116-11(4)]; vice chancellors, provosts, deans, and directors of major administrative, educational, research and public services activities designated by the Board of Governors [N.C.G.S. 116-11(5)].

1.2.4 Senior Academic and Administrative Officer Tier-II: Associate and assistant vice chancellors; associate and assistant deans; and other administrative positions that have been designated and approved by the president.

2. APPOINTMENT TO EHRA POSITIONS

2.1 Method of Appointment

Every appointment to an EHRA position shall be made by the chancellor or chancellor's designee by means of a letter of appointment that fulfills the requirements of Section 2.

2.2 Letter of Appointment

The letter of appointment shall include the items specified in Board of Governors policy 300.2.1 or 300.1.1, as applicable. Section II. B.

2.3 Contingent Appointments

When an EHRA position is funded in whole or substantial part from sources other than continuing State budget funds or permanent trust accounts, the letter of appointment shall state 1) continuation of the employee's service in that position is contingent upon the continuing availability of funds from such other sources to support that position, 2) specify the source of such funds, and 3) that the effect of such contingency may apply without the additional notice otherwise required by Section 3.1, 3.2, and 3.3 provided that the affected employee shall be informed at the earliest practicable date of the occurrence of such a funding contingency.

2.4 Individuals Covered by More than One Employment Policy

2.4.1 When an employee is to serve simultaneously in more than one type of EHRA position as defined in Section 1.2, one position shall be designated in writing as the base that governs the conditions of employment and the rights and responsibilities of the employee. If appointment to an additional type of EHRA position occurs subsequent to the initial appointment, the letter of appointment to the additional position shall embody the required
designation of base employment. The designation of base employment shall specifically describe the different rights, duties, and compensation for each position and the relationship, if any, between/among the positions.

2.4.2 Any funding contingency of the type referred to in section 2.3 shall be set forth separately for the covered position and for the other position(s), since the operation of any such contingencies may be independent.

2.5 Terms of Appointment and Reappointment

2.5.1 Initial appointments and any reappointment(s) for EHRA non-faculty professional positions should be "at will." In exceptional circumstances, with HR endorsement and executive officer approval, EHRA non-faculty professionals may be appointed on a “fixed term.”

2.5.1.1 Fixed-term appointment: An initial fixed-term appointment and any fixed-term reappointment(s) for a permanent EHRA Professional may be for a period of no more than five years.

2.5.1.2 "At will" appointment: An appointment may be designated as "employment at will" subject to continuation or discontinuation at the discretion of the chancellor or chancellor's designee. Such an appointment is for an indefinite term. When a position is not expected to continue indefinitely – such as due to finite programmatic or funding constraints -- appointment should be at-will for a period “not to exceed” an anticipated ending period.

2.5.1.3 A fixed-term appointment may be converted to an "at will" appointment at the end of a fixed-term. An "at will" appointment may be converted to a fixed-term appointment at any time.

2.5.2 Visiting Appointments

An appointment and any subsequent reappointment(s) in a visiting EHRA position shall be for a period(s) of no more than two years. If the visiting appointment is funded in whole or substantial part from sources other than continuing State budget funds or permanent trust accounts, the letter of appointment shall state that: 1) continuation of the employee's service in that position is contingent upon the continuing availability of funds from such other sources to support that position, 2) specify the source of such funds, and 3) state that the effect of such contingency may apply without the additional notice otherwise required by Sections 3.1, 3.2 and 3.3. Any subsequently proposed change from a visiting appointment to a regular appointment is subject to this policy (POL05.15.01).

2.6 Rank/Title, Appointment, Reappointment, and Promotion

Where applicable, a university unit may develop procedures and criteria regarding rank/title, appointment, reappointment, and promotion. Such procedures and criteria must be in accordance with the provisions of section 2.5 and approved by the executive officer to whom the unit reports.

3. DISCONTINUATIONS OF EMPLOYMENT

3.1 Discontinuation of Appointment

3.1.1 Discontinuation with Notice or Severance Pay

Employment within an EHRA position that is established by the letter of appointment to be an
employment "at will" is subject to discontinuation at any time at the discretion of the chancellor or chancellor's designee; provided, that such a discontinuation (as distinguished from discharge for cause, Section 3.4) shall be subject to advance timely notice of discontinuation, as follows: 1) during the first year of service, not less than 30 days notice prior to discontinuation of employment or the payment of severance pay for 30 days; 2) during the second and third years of service, not less than 60 days notice prior to discontinuation of employment or the payment of severance pay for 60 days; and 3) during the fourth and all subsequent years of service, not less than 90 days notice prior to discontinuation of employment or the payment of severance pay for 90 days. After consultation with the provost, vice chancellor, and/or dean as appropriate, the chancellor may determine, at his or her discretion, that it is in the best interest of the University to provide the employee with severance pay in lieu of notice. The severance pay amount must be directly related to the required notice period. Any agreement to compensate the employee in excess of amount set forth in this section must be approved by the Board of Trustees.

3.1.2 Retreat to a Faculty Position

An EHRA employee who is employed at will and holds a concurrent tenured faculty appointment may assume the rights and responsibilities of that faculty appointment in the home department after voluntary or involuntary removal from an administrative appointment, unless a proceeding is initiated to discharge or demote the employee from the faculty position. Any administrative stipend paid during the administrative appointment must be removed once the employee assumes the duties and responsibilities of the faculty position. The employee's new salary must be adjusted to a 9-month or 12-month faculty salary that is commensurate with the salaries of comparable faculty members.

At the discretion of the chancellor, the chancellor may provide for up to a one semester research leave for any tenured faculty member who has served in one or more consecutive Senior Academic and Administrative Officer positions subject to UNC Policy 300.1., I.A for at least five years in order to provide an opportunity for the faculty member to prepare for teaching and research responsibilities. Prior to beginning of the research leave, the administrator will submit a work plan for the leave period to include expected outcomes. The plan will be reviewed and approved by the chancellor.

Exceptions may be made to recognize extraordinary circumstances including, but not limited to, extended or superior service in administrative roles. Any exception to these provisions must be approved by the Board of Trustees and by the President.

In the event that the faculty member does not assume faculty responsibilities for at least one semester after the research leave in accordance with this policy, the chancellor is authorized, in his or her discretion, to require repayment of compensation paid during the leave period from the non-returning faculty member.

3.1.3 Reappointment of an Administrator without Faculty Retreat Rights

An EHRA employee who is employed at will has no claim to a position at the University. The University may determine that it is in its best interest to assign an employee without faculty retreat rights to another administrative or teaching position. In the case of such reassignment, the employee must receive advance notice in accordance with Section 3.1.1 above, and the new salary must be appropriate to the assignment. Any exception to the above must be approved by the Board of Trustees and by the President.
3.2 Expiration of a Fixed-Term Appointment

Employment within an EHRA position that is established by the letter of appointment to be for a stated definite term expires automatically at the conclusion of the stated term; such an appointment may be renewed or extended at the option of the employer, by a new appointment as required by Section 2. If the employer intends not to renew or extend the term contract: 1) with respect to a term of one year or less, no notice of intent not to renew or extend the term shall be required; the letter of appointment is considered to be adequate notice of the expiration of the term; 2) with respect to a term of more than one year but less than four years, notice of intent not to renew or extend shall be transmitted in writing at least 60 days prior to the expiration date of the term; (3) with respect to a term of four years or more, notice of intent not to renew or extend shall be transmitted in writing at least 90 days prior to the expiration of the date of the term. Failure to provide the required 60 or 90 days written notice shall result in the automatic extension of employment for a period that would equal the applicable notice requirement.

3.3 Termination of Employment Because of Financial Exigency or Program Curtailment or Elimination

Employment within an EHRA position that is established by the letter of appointment to be for a stated definite term may be terminated prior to expiration of the stated term because of: 1) demonstrable, bona fide institutional financial exigency, or 2) major curtailment or elimination of a program. "Financial exigency" is defined to mean a significant decline in financial resources of the University that compels a reduction in the institution's budget. The determination of whether a condition of financial exigency exists or whether there shall be a major curtailment or an elimination of a program shall be made by the chancellor, with advance notice to and approval by the president and the Board of Governors. If the financial exigency or curtailment or elimination of a program is such that the contractual obligation to an employee within an EHRA position cannot be met, the employment of the individual may be terminated, subject to the following notice requirements; 1) during the first year of service, not less than 30 days notice prior to termination; 2) during the second and third years of employment, not less than 60 days notice prior to termination; and, 3) during the fourth and all subsequent years of service, not less than 90 days notice prior to termination.

4. DISCHARGE FOR CAUSE

4.1 Any employee occupying an EHRA position may be discharged for stated cause. Discharge for cause is to be distinguished from discontinuation of appointment with notice or severance pay (Section 3.1.1), expiration of a fixed-term appointment (Section 3.2.) and termination of employment because of financial exigency or program curtailment or elimination (Section 3.3). Stated causes for discharge shall include, but not necessarily be limited to, incompetence, unsatisfactory performance, neglect of duty, or misconduct that interferes with the capacity of the employee to perform effectively the requirements of his or her employment. Discharge for cause is to be preceded by written notice of intent to discharge and is subject to Section 4 of this policy. When an employee occupying an EHRA position has been notified of the intention to discharge the employee for cause, the chancellor may suspend the employee's employment at any time and continue the suspension until the chancellor makes a final decision concerning discharge. The power to suspend shall be invoked only in exceptional circumstances and such suspension shall be with full pay.
4.2 For purposes of this policy, an individual serving a stated term should be regarded as having the protection of these procedures until the end of the term. These discharge procedures shall not apply to cases of non-reappointment, discontinuation, or termination of employment.

4.3 The executive officer of the employee's division shall send the individual by a method of delivery that documents receipt, certified mail, return receipt requested, a written statement of intention to discharge or suspend the individual. The statement shall include notice of the individual's rights, upon request, to both written specification of the reasons for the intended action and a hearing.

4.4 Review of a discharge for cause may be requested in accordance with NCSU POL05.25.01 - Faculty Grievance and Non-Reappointment Review Policy (for faculty) or NCSU POL05.25.03 – Review and Appeal Processes for EHRA Non-Faculty Employees (for EHRA non-faculty professional and SAAO-Tier II positions).

5. REVIEW OF DISCONTINUATIONS OR NON-REAPPOINTMENTS AND OTHER EMPLOYMENT GRIEVANCES

Requests for reviews concerning discontinuation of employment with notice or severance pay pursuant to Section 3.1.1 or non-reappointment pursuant to Section 3.2 may be brought only upon allegations of violations of applicable notice or severance pay requirements of Section 3.1 or 3.2 or violations of any provision of Sections 6 or 7 of this policy.

6. EQUAL EMPLOYMENT OPPORTUNITY

It is the policy and intention of North Carolina State University that there be equal employment opportunity and freedom from unlawful discrimination in all employment within the University. There shall be no discrimination in covered positions on the basis of race, color, national origin, sex, religion, creed, disability, veteran status or age.* Employment in covered positions shall be conducted in accordance with all provisions of state or federal law or regulation prohibiting any such discrimination, and in accordance with the University's affirmative action policy.

* Bona fide occupational qualifications or other exceptions to those general prohibitions, specifically provided for by State or Federal law are applicable to EHRA positions.

7. PROTECTED ACTIVITY

Employment in EHRA positions shall not be adversely affected by the exercise of rights guaranteed by the First Amendment to the United States Constitution or by Article I of the North Carolina Constitution; provided, that employees in EHRA positions shall be subject to any limitations on political activity established by Article 5 of N.C.G.S. Chapter 126. The Board of Governors' policy in this regard, as adopted on January 16, 1976, and as it may be revised from time to time, shall apply to EHRA positions.

8. HOLIDAY AND LEAVE ENTITLEMENT

8.1 Holidays

EHRA employees shall be subject to the same number of days as given to employees subject to the State Personnel Act.

8.2 Annual Leave (effective July 1, 2001)
8.2.1 Basic Leave Policy

8.2.1.1 Annual Leave: Annual leave is accrued at a monthly rate and is adjusted proportionately for a part-time employee who works halftime or more (0.50 - 0.99 FTE). The monthly earnings amount is equal to one-twelfth of the annual rate for each month the employee works or is on approved leave with pay. Monthly leave is earned when an employee works or is on approved leave with pay at least half the working days of a month.

8.2.1.1.1 Permanent EHRA Professional and SAAO Tier II Employees: The amount of annual leave to which a permanent full-time (1.00 FTE) EHRA employee shall be entitled to accrue is twenty-four (24) workdays per year.

8.2.1.1.2 SAAO Tier I Employees: The amount of annual leave to which a SAAO Tier I employee shall be entitled to accrue is 26 workdays per year.

8.2.1.2 Definition of Year: NC State defines a year as the "calendar year" (January 1 - December 31). The scheduling of an employee's annual leave shall be subject to the approval of the employee's supervisor. With respect to an incumbent employee who is earning more than 24 days per year as of the date this policy becomes effective, such employee shall be entitled to continue to earn leave at that rate.

8.2.1.3 Leave Carry Forward and Conversion: The maximum number of unused days of annual leave that an EHRA employee may accrue and carry forward from one calendar year to the next shall be thirty (30) days. Annual leave in excess of 30 days will be automatically converted to sick leave at the end of the calendar year.

8.2.2 Transfer of Accrued Annual Leave

NC State does not may accept the transfer of partial or full accrued annual leave at the discretion of the Chancellor or designee. This applies to includes any leave from a UNC constituent institution, the UNC System Office, or State of North Carolina agency or local North Carolina government.

8.2.3 Advancement of Annual Leave

Subject to approval by the employee's supervisor, an EHRA employee may be advanced an amount of annual leave and/or sick leave up to a combined maximum deficit balance of twenty (20) days. Appropriate uses for sick leave are prescribed in the State Personnel Manual, Section 5. A supervisor may approve a deficit balance of annual and/or sick leave, for extenuating circumstance or exceptional need. The permissible negative balance is adjusted proportionately for a permanent part-time employee who works halftime or more (0.50 - 0.99 FTE). If an employee separates from NC State and has taken more annual and/or sick leave than has been accrued, then NC State will determine the amount of annual and/or sick leave the employee must repay to NC State and make deductions from the employee's final salary check accordingly. However, if the employee has been advanced more leave than can be repaid in the employee's final paycheck, the employee will be billed accordingly.

8.2.4 Payout of Accrued Annual Leave

8.2.4.1 An EHRA employee who has accrued unused annual leave upon discontinuation of employment from NC State and who either does not elect or is not eligible to transfer such accrued leave to another State or local governmental agency, shall be paid for such unused annual leave.
8.2.4.2 The amount paid to an EHRA employee who has been employed an aggregate of 24 months or less by one or more State or local governmental agencies is equal to one day for each month worked less the number of days of annual leave taken during the employment period. An employee who has been employed for more than 24 months shall be paid subject to a maximum of 30 such days.

8.2.4.3 If an EHRA employee changes contract status from 12 months to 9 months, then the employee's annual leave balance as of the effective date of the contract change will be paid out at the time of the appointment conversion. An EHRA employee who transfers inside NC State to an SPA position shall have the annual and sick leave balances transferred to that position.

8.3 Sick Leave, Family and Medical Leave, Civil Leave, Military Leave, and Community Service Leave

8.3.1 Sick Leave

8.3.1.1 A permanent EHRA employee shall be subject to the same policies concerning sick leave as may be prescribed for employees subject to the State Personnel Act.

8.3.1.2 Subject to approval by the employee's supervisor, a permanent "at-will" EHRA employee may be advanced an amount of annual and/or sick leave up to a combined maximum deficit balance of twenty (20) days. A permanent fixed-term EHRA employee may be advanced an amount of annual and/or sick leave up to the amount that can be earned through the appointment end date or a maximum of twenty (20) days, whichever is less. Appropriate uses for sick leave are prescribed in the State Personnel Manual, Section 5. A supervisor may approve a deficit balance of annual and/or sick leave, for extenuating circumstance or exceptional need. The permissible negative balance is adjusted proportionately for a permanent part-time employee who works halftime or more (0.50 - 0.99 FTE). If an employee separates from NC State and has taken more annual and/or sick leave than has been accrued, NC State will determine the amount of annual and/or sick leave the employee must repay to the institution and make deductions from the employee's final salary check accordingly. However, if the employee has been advanced more leave then can be repaid in the employee's final paycheck, the employee will be billed accordingly.

8.3.2 Family and Medical Leave, Civil Leave, Military Leave, and Community Service Leave

A permanent EHRA employee shall be subject to the same policies concerning family and medical leave, civil leave, military leave, and community service leave as may be prescribed for employees subject to the State Personnel Act.

8.4 Leave of Absence without Pay

A permanent EHRA employee may request a leave of absence without pay, subject to approval of such leave by the chancellor or chancellor's designee, as applicable.

8.5 Voluntary Shared Leave

A permanent EHRA employee shall be subject to the same provisions concerning shared leave as are applicable to employees subject to the State Personnel Act with the exception that the donation and acceptance of such leave shall be computed on the basis of days rather than hours.

8.6 Educational Entitlement
A permanent EHRA employee is entitled to the same opportunities as other University employees to invoke the privilege of tuition waiver conferred by UNC Policy 1000.2.2.

9. STATUTORY AND OTHER RULES OF EMPLOYMENT

9.1 Privacy of Personnel Records

An EHRA employee has the protections of and is subject to the provisions of Article 7 of N.C.G.S.126, entitled "The Privacy of State Employee Personnel Records."

9.2 Employment Preference for Veterans

An EHRA employee has the protections of and is subject to the provisions of N.C.G.S.128-15 which provide for preference in employment for veterans of United States military service and their spouses and widows or widowers.

9.3 Employment of Related Persons

An EHRA employee is subject to Board of Governors policy 300.4.2 concerning employment of related persons as it may be revised from time to time.

9.4 Retirement

An EHRA employee may retire in accordance with the provisions of Chapter 135 of the North Carolina General Statutes ("Retirement System of Teachers and State Employees"). Nothing in this policy shall prevent an employee from retiring or an administrator with faculty retreat rights from participating in phased retirement consistent with existing policies.
## NC State University
### Department of Athletics
#### 2018-19 Proposed Bonus Structure

**Softball**

### ACADEMIC

<table>
<thead>
<tr>
<th>Federal Graduation Rate (FGR) (beginning Year 3)</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
<th>Director of Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Year FGR ≥ 75%</td>
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<td>$1,000</td>
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<table>
<thead>
<tr>
<th>Academic Progress Rate (APR) (beginning Year 2)</th>
<th>Head Coach</th>
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<th>Asst. Coach</th>
<th>Director of Operations</th>
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<tbody>
<tr>
<td>Single-Year APR of 1,000</td>
<td>5,000</td>
<td>2,500</td>
<td>2,500</td>
<td>1,000</td>
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</table>

### COMPETITIVE

**ACC (may be independently earned)**

<table>
<thead>
<tr>
<th>ACC Tournament Champions</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
<th>Director of Operations</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>5,000</td>
<td>2,500</td>
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**NCAA Tournament (earn highest)**

<table>
<thead>
<tr>
<th>NCAA Tournament Regional Appearance</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
<th>Director of Operations</th>
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<tbody>
<tr>
<td></td>
<td>5,000</td>
<td>2,500</td>
<td>2,500</td>
<td>1,000</td>
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</table>

<table>
<thead>
<tr>
<th>NCAA Tournament Super Regional (Top 16)</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
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<tr>
<td></td>
<td>15,000</td>
<td>7,500</td>
<td>7,500</td>
<td>3,750</td>
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<table>
<thead>
<tr>
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<tr>
<td></td>
<td>20,000</td>
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<table>
<thead>
<tr>
<th>NCAA Tournament Championship Series (Top 2)</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25,000</td>
<td>12,500</td>
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<td>6,250</td>
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</table>

<table>
<thead>
<tr>
<th>NCAA National Championship</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
<th>Director of Operations</th>
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<tr>
<td></td>
<td>30,000</td>
<td>15,000</td>
<td>15,000</td>
<td>7,500</td>
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</table>

### Final USA Today/ESPN Ranking (earn highest)

<table>
<thead>
<tr>
<th>Final USA Today/ESPN Ranking</th>
<th>Head Coach</th>
<th>Asst. Coach</th>
<th>Asst. Coach</th>
<th>Director of Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 25</td>
<td>5,000</td>
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<td>1,000</td>
</tr>
<tr>
<td>Top 10</td>
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<td>5,000</td>
<td>5,000</td>
<td>2,500</td>
</tr>
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</table>

### COACH OF THE YEAR (may be independently earned)

<table>
<thead>
<tr>
<th>COACH OF THE YEAR</th>
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<tbody>
<tr>
<td>ACC Coach of the Year</td>
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<tr>
<td>NFCA National Coach of the Year</td>
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</table>
# 2018-19 Proposed Bonus Structure

## Rifle

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>ACADEMIC</td>
<td>Federal Graduation Rate (FGR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(beginning Year 3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-Year FGR ≥ 80%</td>
<td>$ 2,500</td>
</tr>
<tr>
<td></td>
<td>Academic Progress Rate (APR)</td>
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<tr>
<td></td>
<td>(beginning Year 2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single-Year APR of 1,000</td>
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</tr>
<tr>
<td>COMPETITIVE</td>
<td>(earn highest in each category)</td>
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<tr>
<td></td>
<td>Conference Championships</td>
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<tr>
<td></td>
<td>GARC Champions</td>
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</tr>
<tr>
<td></td>
<td>NCAA Championships</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Top 8 Finish</td>
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<tr>
<td></td>
<td>Top 6 Finish</td>
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</tr>
<tr>
<td></td>
<td>Top 4 Finish</td>
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<tr>
<td></td>
<td>Top 2 Finish</td>
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</tr>
<tr>
<td></td>
<td>National Champions</td>
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</tr>
<tr>
<td></td>
<td>Coach of the Year</td>
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</tr>
<tr>
<td></td>
<td>National Coach of the Year</td>
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Certificate Title: _Global Health______________
   New: X
   Revision: ☐

Classification of Instructional Programs (CIP) Discipline # (6 digits): _51.2210_____
   *Please ensure that you select the appropriate CIP code for your certificate program. Please consult this website for more information about CIP codes: https://nces.ed.gov/ipeds/cipcode/default.aspx?y=55

Certificate Type:
   On-Campus: X  Distance: ☐  On-Campus & Distance: ☐

Proposed Effective Date: ___04/01/2018__________________

Director of the Certificate Program: __Dr Andy Stringer____________________________
Program Coordinator (if different from Director): __N/A________________________
Graduate Services Coordinator: ______ N/A __________________________
College: ___College of Veterinary Medicine____________________________________
Department/Program: Population Health and Pathobiology______________________

Catalog Description:

The Certificate in Global Health will introduce DVM students to global health issues and challenges. It will allow students to develop an understanding of key concepts, tools and frameworks essential for continued study in global health. The Certificate in Global Health will highlight the importance of understanding and addressing global health through multidisciplinary frameworks and collaborations. Completing the Certificate in Global Health gives you the knowledge to operate as a global citizen. The Certificate in Global Health program will cover the global disease burden, health determinants and disparities, health policy and actors, and the challenges facing global health. It will also provide an introduction to the methodological approaches and techniques used in global health research, including qualitative fieldwork, quantitative surveys, experimental designs, intervention trials, and program evaluation.

Projected Enrollment:

<table>
<thead>
<tr>
<th></th>
<th>Yr. 1</th>
<th>Yr. 2</th>
<th>Yr. 3</th>
<th>Yr. 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Campus</td>
<td><em>5</em></td>
<td><em>6</em></td>
<td><em>7</em></td>
<td><em>8</em></td>
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<tr>
<td>Distance</td>
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<td><em>0</em></td>
<td><em>0</em></td>
<td><em>0</em></td>
</tr>
</tbody>
</table>

Attachments:

☑  Proposal Document
☐  Statement of other departments likely to be affected and summary of consultation with those departments
☐  Program-level assessment
☑  Campus Routing Form
☑  Signature Page
Proposal for Certificate in Global Health
College of Veterinary Medicine, North Carolina State University

Introduction

Veterinarians have an increasingly important role to play in addressing the grand global challenges of the 21st century, particularly in areas such as infectious disease control, antimicrobial resistance, food security and global health\textsuperscript{1}. An increasing human population, urbanization, increasing demand for livestock products and climate change will place greater pressures on the environment, human and animal health and livelihoods. The advances of the 21st century have led to a world that is increasingly interconnected. Globalization will see global problems becoming US problems. In the coming decades, many of the major challenges to human health will originate outside of the human health sector. These range from emerging zoonotic diseases to pollution and climate change\textsuperscript{2}. Tackling these challenges effectively will require multidisciplinary approaches with consideration given to the broader systems that encompass health (such as housing, transport, animal health, urban land use and agriculture).

Veterinary student education must reflect these global challenges and equip the next generation of veterinarians with the knowledge and skills required to tackle these problems and contribute to the changing needs of society. There has been a growing recognition of the need for improved veterinary education related to issues of global importance\textsuperscript{3,4,5,6}. The American Association of Veterinary Medical Colleges (AAVMC) has produced a position statement (endorsed jointly by the American Veterinary Medical Association) on addressing societal needs\textsuperscript{7}. The position statement highlights that ‘an accredited college should provide an environment that encourages a diversity of educational paths’ for veterinary students. The AAVMC North American Veterinary Medical Education Consortium (NAVMEC) Report (Roadmap for Veterinary Medical Education in the 21st Century)\textsuperscript{8} highlighted the need to: ‘Empower veterinarians to contribute to societal needs from a global perspective’ as one of its main recommendations.

International learning experiences are vital to a Global Health Education program. International experiences, whether a research or clinical placement, allow first hand exposure to different contexts and global challenges, and provide an insight into different cultures and communities. These experiences help to develop key skills required for a future career in global health. Students will gain an increased understanding of differing perspectives and cultural values; improved communication skills; the ability to work in an interdisciplinary team; the ability to critically analyze problems involving complex social and ethical concerns; and the ability to be flexible, innovative and adaptable in resource poor contexts. The benefits of an international learning experience should lead to graduates that are more resourceful, more resilient, and who have a wider professional perspective.

\textsuperscript{2} https://agenda.weforum.org/2015/10/how-the-sdgs-can-help-address-global-health-challenges/
\textsuperscript{6} Veterinary Students as Global Citizens. Royal Veterinary College, University of London and Development Education Research Centre, Institute of Education. 2012.
\textsuperscript{7} http://www.aavmc.org/data/files/about_aavmc/aavmc%20position%20statements.pdf
\textsuperscript{8} http://www.aavmc.org/data/files/navmec/navmec_roadmapreport_web_single.pdf
Certificate Overview

The Certificate in Global Health is a formal academic certificate for DVM students that examines the complexities inherent in improving health on a global scale. The Certificate in Global Health will introduce DVM students to global health issues and challenges. It will allow students to develop an understanding of key concepts, tools and frameworks essential for continued study in global health. The Certificate in Global Health will highlight the importance of understanding and addressing global health through multidisciplinary frameworks and collaborations. Completing the Certificate in Global Health gives you the knowledge to operate as a global citizen.

We define global health as

‘an area for study, research and practice that places a priority on improving health and achieving health equity for all people worldwide. Global health issues transcend boundaries and require collective solutions that emphasize improving health, reducing disparities, and protecting against global threats.’

The Certificate in Global Health program will cover the global disease burden, health determinants and disparities, health policy and actors, and the challenges facing global health. It will also provide an introduction to the methodological approaches and techniques used in global health research, including qualitative fieldwork, quantitative surveys, experimental designs, intervention trials, and program evaluation.

Earning the Certificate in Global Health requires completion of 12 credits. These credits are gained through the completion of 3 core selectives (3 credits), an additional 4 credits from optional selectives/elective, and 5 credits though completion of an international Global Health Research Project.

Certificate Learning Outcomes

Upon completion of the Global Health Certificate, individuals will be able to:

- Describe the current challenges and trends in global health.
- Describe contemporary and historic global health issues, programs, best practices and actors.
- Analyze the complexities of the social, economic, medical, political and environmental factors that affect global health.
- Analyze strategies to address health disparities across socially, demographically and geographically defined populations.
- Describe how individuals from a variety of disciplines collaborate to improve global health.
- Demonstrate cultural competence and the ability to work effectively within diverse cultural settings.
- Demonstrate an understanding of global health in practice through the process of participation in a data driven experiential learning experience in an international setting.

Requirements for Admission

Students must be enrolled in the DVM degree program at the College of Veterinary Medicine, North Carolina State University and be good academic standing. Students must complete the Certificate in Global Health during the 4-year DVM program.

All courses taken towards the Certificate program must be completed with a grading of Satisfactory (S).

Students must contact the Course Director, Dr Andy Stringer, to apply to the Certificate program.

Program of Study
Earning the Certificate in Global Health requires completion of 12 credits. These credits are gained through the completion of 3 core selectives (3 credits), an additional 4 credits from optional selectives/elective, and 5 credits though completion of an international Global Health Research Project.

Core selectives help you build a foundation of basic knowledge in global health. Core selectives can be completed in any order. Optional selectives allow you to explore in greater depth topics relevant to global health. Only one credit from the ‘orange’ optional selectives can be taken.

**Core and Optional Selectives**

For additional information on Core and Optional Selectives, please refer to the Certificate Handbook. All selectives listed below are 1 credit.

<table>
<thead>
<tr>
<th>Selective</th>
<th>Code</th>
<th>Core</th>
<th>Optional</th>
<th>Faculty Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Health Challenges</td>
<td>VMP 991 162</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Global Health Research Methods</td>
<td>VMP 991 163</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Globalization, Int Trade and Vets</td>
<td>VMP 991 250</td>
<td></td>
<td></td>
<td>Maria Correa</td>
</tr>
<tr>
<td>Surveillance in Veterinary Medicine</td>
<td>VMP 991 151</td>
<td></td>
<td></td>
<td>Maria Correa</td>
</tr>
<tr>
<td>Intro to Research</td>
<td>VMB 991 105</td>
<td></td>
<td></td>
<td>Matthew Breen</td>
</tr>
<tr>
<td>Special Topics in Toxicology</td>
<td>VMB 991 223</td>
<td></td>
<td></td>
<td>David Dorman</td>
</tr>
<tr>
<td>Developmental Toxicology</td>
<td>VMB 991 301</td>
<td></td>
<td></td>
<td>Nanette Yascone-Yoder</td>
</tr>
<tr>
<td>Infectious Disease Dynamics</td>
<td>VMP 991 160</td>
<td></td>
<td></td>
<td>Christina Lanzas</td>
</tr>
<tr>
<td>Food Animal Residue Avoidance</td>
<td>VMP 992 114</td>
<td></td>
<td></td>
<td>Ronald Baynes</td>
</tr>
<tr>
<td>Topics in Veterinary Microbiology</td>
<td>VMP 991 144</td>
<td></td>
<td></td>
<td>Paula Cray</td>
</tr>
<tr>
<td>Global Emerging Infectious Diseases</td>
<td>VMP 991 156</td>
<td></td>
<td></td>
<td>Peter Cowen</td>
</tr>
<tr>
<td>Molecular Epidemiology</td>
<td>VMP 991 167</td>
<td></td>
<td></td>
<td>Sid Thakur</td>
</tr>
<tr>
<td>Immunodiagnastics</td>
<td>VMP 991 143</td>
<td></td>
<td></td>
<td>Jonathan Fogle</td>
</tr>
<tr>
<td>Epi/Public Health in Spanish</td>
<td>VMP 991 264</td>
<td></td>
<td></td>
<td>Maria Correa</td>
</tr>
<tr>
<td>Principles of Vaccination</td>
<td>VMP 991 268</td>
<td></td>
<td></td>
<td>Tobias Kaeser</td>
</tr>
<tr>
<td>World Travel: Health and Safety</td>
<td>VMC 991 225</td>
<td></td>
<td></td>
<td>Micahel Loomis</td>
</tr>
<tr>
<td>Vet Med Terminology in Spanish</td>
<td>VMP 991 139</td>
<td></td>
<td></td>
<td>Maria Correa</td>
</tr>
<tr>
<td>Global Health: Uganda</td>
<td>VMP 991 265</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Vet Int Experience</td>
<td>VMP 991 112</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Vet Int Experience</td>
<td>VMP 991 212</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Vet Int Experience</td>
<td>VMP 991 312</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Vet Int Experience</td>
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<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Vet Int Experience</td>
<td>VMP 992 212</td>
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<td></td>
<td>Andy Stringer</td>
</tr>
<tr>
<td>Vet Int Experience</td>
<td>VMP 992 312</td>
<td></td>
<td></td>
<td>Andy Stringer</td>
</tr>
</tbody>
</table>
Optional Elective

For additional information on the Optional Elective, please refer to the Certificate Handbook.

- One Health - Philosophy to Practice: VMP 986 (2 credits). Faculty Instructor – Suzanne Kennedy Stoskoph.

Core Elective

For additional information on the Core Elective, please refer to the Certificate Handbook.

- Global Health Research Project: VMP 900 (5 credits). Faculty Instructor – Andy Stringer.

This international Global Health Research Project will allow students to develop an understanding of methodological approaches and techniques used in global health research, including qualitative fieldwork, quantitative surveys, experimental designs, intervention trials, and program evaluation. This elective will highlight the importance of understanding and addressing global health through multidisciplinary frameworks and collaborations. This elective is a required component of the Certificate in Global Health.

Program Administration

The Certificate in Global Health will be administered by a Certificate Director from the Department of Population Health and Pathobiology.

Current Certificate Director: Andy Stringer BVSc PhD MRCVS, Director, Global Health Education. College of Veterinary Medicine, NC State University. Email: apstringer@ncsu.edu Tel: (919) 513 6275

All of the proposed courses for this Certificate in Global Health are currently active and have been taught previously. The implementation and management of the Certificate in Global Health is not expected to require effort outside of the normal academic activities of course instructors and staff.

No additional staff or resources will be required.

Enrollment Projection

Enrollment will be drawn from DVM students at the College of Veterinary Medicine, North Carolina State University. We project an initial enrollment of 5 students in Year 1, growing to approximately 7-8 students per year by Year 4.

Outcomes Assessment Plan
Objectives

1. In this certificate program, students will be introduced to global health issues and challenges, developing an understanding of key concepts, tools and frameworks essential for continued study in global health, including the importance of understanding and addressing global health through multidisciplinary frameworks and collaborations.

2. The certificate program will provide an educational experience that satisfies the expectations of its graduates.

Learning Outcomes

1. Upon completion of the Global Health Certificate, individuals will be able to:
   - Describe the current challenges and trends in global health.
   - Describe contemporary and historic global health issues, programs, best practices and actors.
   - Analyze the complexities of the social, economic, medical, political and environmental factors that affect global health.
   - Analyze strategies to address health disparities across socially, demographically and geographically defined populations.
   - Describe how individuals from a variety of disciplines collaborate to improve global health.
   - Demonstrate cultural competence and the ability to work effectively within diverse cultural settings.
   - Demonstrate an understanding of global health in practice through the process of participation in a data driven experiential learning experience in an international setting.

2. At the time they complete this certificate program, graduates are expected to:
   - Be satisfied with the usefulness of the certificate program in enabling them to achieve their professional goals.
   - Be sufficiently satisfied with the certificate program to recommend it to others with the same professional goals.
   - Be satisfied with the appropriateness of the courses in providing the knowledge or training they anticipate needing for their professional goals.
   - Be satisfied with the frequency and timeliness of courses offered for the certificate.
   - Be satisfied with the quality of teaching in certificate courses.
   - Be satisfied with the overall educational experience of the certificate program.
health, including the importance of understanding and addressing global health through multidisciplinary frameworks and collaborations.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Evidence to be Collected</th>
<th>Source of Evidence</th>
<th>Frequency of Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the current challenges and trends in global health.</td>
<td>VMP 991 162 Assignments (Group and Individual Presentations; Policy Paper Brief)</td>
<td>Students</td>
<td>Annually</td>
</tr>
<tr>
<td>Describe contemporary and historic global health issues, programs, best practices and actors.</td>
<td>VMP 991 162; VMP 991 163; VMP 991 250; VMP 900 Assignments (Assessed across multiple selectives and international elective using Group and Individual Presentations; Policy Paper Brief; and International Research Project Report and Evaluation)</td>
<td>Students</td>
<td>Annually</td>
</tr>
<tr>
<td>Analyze the complexities of the social, economic, medical, political and environmental factors that affect global health.</td>
<td>VMP 991 162; VMP 991 163; VMP 991 250; VMP 900 Assignments (Assessed across multiple selectives and international elective using Group and Individual Presentations; Policy Paper Brief; and International Research Project Report and Evaluation)</td>
<td>Students</td>
<td>Annually</td>
</tr>
<tr>
<td>Analyze strategies to address health disparities across socially, demographically and geographically defined populations.</td>
<td>VMP 991 162; VMP 991 163; VMP 991 250; VMP 900 Assignments (Assessed across multiple selectives and international elective using Group and Individual Presentations; Policy Paper Brief; and International Research Project Report and Evaluation)</td>
<td>Students</td>
<td>Annually</td>
</tr>
<tr>
<td>Describe how individuals from a variety of disciplines collaborate to improve global health.</td>
<td>VMP 991 162; VMP 991 163; VMP 991 250; VMP 900 Assignments (Assessed across multiple selectives and international elective using Group and Individual Presentations; Policy Paper Brief; and International Research Project Report and Evaluation)</td>
<td>Students</td>
<td>Annually</td>
</tr>
<tr>
<td>Demonstrate cultural competence and the ability to work effectively within diverse cultural settings.</td>
<td>VMP 900 Assignments (Assessed through International Research Project Report and Evaluation)</td>
<td>Students</td>
<td>Annually</td>
</tr>
<tr>
<td>Demonstrate an understanding of global health in practice through the process of participation in a data driven experiential learning experience in an international setting.</td>
<td>VMP 900 Assignments (Assessed through International Research Project Report and Evaluation)</td>
<td>Students</td>
<td>Annually</td>
</tr>
</tbody>
</table>

**Objective 2.** The certificate program will provide an educational experience that satisfies the expectations of its graduates
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Evidence to be Collected</th>
<th>Source of Evidence</th>
<th>Frequency of Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be satisfied with the usefulness of the certificate program in enabling them to achieve their professional goals</td>
<td>Exit survey administered by College of Veterinary Medicine</td>
<td>College of Veterinary Medicine</td>
<td>Annually</td>
</tr>
<tr>
<td>To be sufficiently satisfied with the certificate program to recommend it to others with the same professional goals</td>
<td>Exit survey administered by College of Veterinary Medicine</td>
<td>College of Veterinary Medicine</td>
<td>Annually</td>
</tr>
<tr>
<td>To be satisfied with the appropriateness of the courses in providing the knowledge or training they anticipate needing for their professional goals</td>
<td>Exit survey administered by College of Veterinary Medicine</td>
<td>College of Veterinary Medicine</td>
<td>Annually</td>
</tr>
<tr>
<td>To be satisfied with the frequency and timeliness of courses offered for the certificate</td>
<td>Exit survey administered by College of Veterinary Medicine</td>
<td>College of Veterinary Medicine</td>
<td>Annually</td>
</tr>
<tr>
<td>To be satisfied with the quality of teaching in certificate courses</td>
<td>Exit survey administered by College of Veterinary Medicine</td>
<td>College of Veterinary Medicine</td>
<td>Annually</td>
</tr>
<tr>
<td>To be satisfied with the overall educational experience of the certificate program</td>
<td>Exit survey administered by College of Veterinary Medicine</td>
<td>College of Veterinary Medicine</td>
<td>Annually</td>
</tr>
</tbody>
</table>
Certificate in Global Health
North Carolina State University

This request has been reviewed and approved by the appropriate campus committees and authorities.

Endorsed By:
[Signature]
Paula J. F. Cray
2/17/18
Head, Department/Director of Graduate Program (Printed Name and Signature) Date

Recommended By:
[Signature]
James R. Flowers
2/12/18
Chair, College Graduate Studies Committee (Printed Name and Signature) Date

Endorsed By:
[Signature]
2-12-18
(Published Name and Signature) Date

Recommended By:

Vice Provost, DELTA (if DE degree) (Printed Name and Signature) Date

Approved By:
[Signature]
Peter J. Harrick
3/22/18
Dean of the Graduate School (Printed Name and Signature) Date

Recommended By:
[Signature]
Duane Larrow
4/26/18
Dean’s Council (Printed Name and Signature) Date

Approved By:
[Signature]
Warwick Arden
4/26/18
Executive Vice Chancellor and Provost (Printed Name and Signature) Date

Approved By:
[Signature]
W. R. Woodward
6/13/18
Chancellor (Printed Name and Signature) Date

(revised August 2015)
Certificate Title: Online Graduate Certificate in Biology for Educators

New: ☒
Revision: ☐

Classification of Instructional Programs (CIP) Discipline # (6 digits): 26.0101
*Please ensure that you select the appropriate CIP code for your certificate program. Please consult this website for more information about CIP codes:

Certificate Type:
On-Campus: ☐
Distance: ☒
On-Campus & Distance: ☐

Proposed Effective Date: Summer 2018 (July 2018)

Director of the Certificate Program: Elizabeth Thompson, PhD
Program Coordinator (if different from Director):
Graduate Services Coordinator: Margaret Huffman
College: College of Science
Department/Program: Biological Sciences

Catalog Description:
The Graduate Certificate in Biology for Educators will provide additional training in biological sciences to K-12 teachers and other educators. The certificate will provide recognition to those individuals who complete 12 credit hours of coursework in graduate level biology, with the option to complete up to 18 credit hours for those interested in teaching AP courses or teaching at the community college level. Students will choose between four and six courses (3 credits each) in topic areas that align with their own goals. Course topics will include animal behavior, communicable and non-communicable diseases, toxicology, evolution, genetics and microbiology, and faculty will continue to develop new courses to increase options.

Projected Enrollment:
On-Campus
Yr. 1-__ Yr. 2-__ Yr. 3-__ Yr. 4-__
Distance
Yr. 1-10 Yr. 2-20 Yr. 3-30 Yr. 4-40

Attachments:
☒ Proposal Document
☒ Statement of other departments likely to be affected and summary of consultation with those departments
☒ Program-level assessment (Education Advisory Board Study)
☒ Campus Routing Form
☒ Signature Page
Proposal for Graduate Online Certificate in Biology for Educators

Program Justification

The US Department of Education and the North Carolina Board of Instruction both predict large increases in STEM related jobs over the next 5-10 years. In preparation for this increase, the North Carolina State Board of Education has created a STEM education plan, which includes three items of high priority. These items include: improving STEM achievement of students, bolstering community understanding and support, and connecting, leveraging, and increasing STEM resources. To achieve the goal of improving STEM achievement in students, we need an adequate number of teachers highly trained in STEM disciplines, especially the biological sciences. Market research performed by the Education Advisory Board has corroborated that there is a strong need for STEM discipline courses for teachers. Our proposed online Graduate Certificate in Biology for Educators will provide not only a much-needed opportunity for educators in all settings to increase their background in biological sciences, but it may also serve as a bridge for those wanting to pursue additional degrees in scientific disciplines or a graduate degree in education.

This certificate will offer educators the opportunity to take courses in biological sciences designed by faculty in the Department of Biological Sciences.

The online nature of this certificate program will (1) allow us to offer the program regionally, statewide and nationally, and (2) will increase accessibility to working educators who may have little flexibility in their schedule.

Program Objectives

Completion of this certificate program will allow teachers to improve their literacy in biological sciences. With this enhanced knowledge, they will be able to bring improved content and lesson plans to their students. Those who enroll in this certificate program will choose courses to complement their existing biology background and expand their knowledge in areas in which they may have a special interest or in which they feel the need for additional training. Ultimately, the NC State Graduate Certificate in Biology for Educators will help them develop a stronger knowledge base to use in developing learning activities, expanding upon those they already implement, and presenting scientific material to their students in new ways.

As an added benefit, this program will offer courses that could be completed by teachers looking to satisfy their subject-specific continuing education credits. North Carolina requires teachers to complete subject-specific continuing education credits every five years, and completion of one of these courses would satisfy that requirement.

Finally, courses offered within the certificate program will be available to students involved in other graduate education programs (for example, STEM M.Ed. and Ph.D. and Elementary Education Science Specialist M.Ed.), and would provide an additional pool of much-needed online courses from which such students could select to fulfill their requirements for credit hours in the sciences.
**Graduate Catalog Description**

The Graduate Certificate in Biology for Educators will provide additional training in biological sciences to pre-college teachers, community college instructors, and other educators (e.g., at museums, zoos, national parks). The certificate will provide recognition to those individuals who complete 12 credit hours of coursework in graduate-level biology, with the option to complete up to 18 credit hours for those interested in teaching AP courses or teaching at the community college level. Students will choose three or five courses (3 credits each) in topic areas that align with their own interests. Students also will be required to complete the capstone course, BSC 580 Neurobiology of Learning (3 cr).

**Projected Enrollment**

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

**Admissions Requirements**

Applicants must meet one of these three requirements:

- have earned a bachelor’s degree from a regionally accredited college or university with minimum 3.0 GPA in the last 60 credit hours of undergraduate study
- be a graduate student in good standing in an education-related masters or doctoral program
- have earned a master’s degree from an accredited college or university

In addition, applicants will be required to submit a one-page statement describing how this program will benefit their personal or professional development and career goals. Preference will be given to applicants with a background in college biology/STEM.

**Program of Study**

The graduate certificate requires a minimum of 12 credit hours, including the capstone course BSC 580 (3 cr) and at least 9 credit hours of Electives chosen by the certificate student. No more than one 400 level course may be applied to the certificate.

**Electives (minimum 9 cr):**

*NOTE to committee – BSC 514, 516, 546, and 580 are in the approval process; 520, 544, and 548 are in development, as are other courses to be added later. If we can code the applicable electives as BSC 5**, that would be most efficient. But we understand that courses that are currently (or soon to be) available need to be listed here.

**BSC 514** Studying Animal Behavior (3 cr)
**BSC 516** Toxics, Human Health and the Environment (3 cr)
**BSC 520** Model Organisms in Cellular and Molecular Biology (3 cr)
**BSC 527** Biological Illustration: Learning Through Close Observation (3 cr)
**BSC 544** Cancer Biology (3 cr)
**BSC 546** Humans and Disease: Communicable Diseases (3 cr)
**BSC 548** Humans and Disease: Non-Communicable Diseases (3 cr)
400-level option (only one 400-level course can count towards the certificate):
- BIO 405 - Functional Histology
- BIO 424 - Endocrinology
- MB 411 - Medical Microbiology
- MB 441 - Immunology
- MB 451 - Microbial Diversity
- TOX 401 - Principles of Toxicology
- TOX 415 - Environmental Toxicology and Chemistry

Capstone Course (Required):
BSC 580 Neurobiology of Learning (3 cr) will be taken as the final course in the certificate program.

Table 1. Previous Enrollments in BSC courses currently in the approval process

<table>
<thead>
<tr>
<th>Course</th>
<th>Summer I 2015</th>
<th>Summer I 2016</th>
<th>Summer II 2016</th>
<th>Summer I 2017</th>
<th>Summer II 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 514 Animal Behavior (ZO 592 601)</td>
<td>18</td>
<td>18</td>
<td>X</td>
<td>20</td>
<td>X</td>
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<tr>
<td>BSC 516 Toxics, Health and the Environment (ZO 592 651)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>8</td>
<td>X</td>
</tr>
<tr>
<td>BSC 546 Humans and Disease: Communicable Diseases (ZO 592 603)</td>
<td>X</td>
<td>X</td>
<td>13</td>
<td>23</td>
<td>14</td>
</tr>
<tr>
<td>BSC 580 Neurobiology of Learning</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

X = Not offered

Academic Performance

1. Award of a Graduate Certificate requires a GPA of at least 3.0 on all courses completed as part of the certificate program
2. The minimum grade to receive certificate credit for any course is “C-”
3. None of the required 12 hours may be taken S/U or “credit only”
4. A maximum of 6 credits of previous relevant NC State coursework may be transferred into the certificate
5. Transfer credits from other institutions are not allowed for the certificate
6. All students must be registered through NC State University
7. All Graduate Certificate requirements must be completed within 4 calendar years from the date the student begins coursework for the certificate, and includes any semesters in which transferred credits were taken.
Application and Completion Process

1. All new applicants must submit a certificate application for acceptance. The applicant must apply via the Graduate School application, found at: https://projects.ncsu.edu/grad/applygrad.htm

2. Those applicants who are enrolled in other graduate programs at NC State must provide the Graduate Student Certificate Plan Data Entry form, found at: https://grad.ncsu.edu/faculty-and-staff/forms/graduate-school-forms/

We will encourage all students participating in the certificate program to contact the Certificate Coordinator to determine registration procedures, course availability and registration dates.

Once all certificate requirements have been met, the Certificate Coordinator will notify the Dean of the Graduate School that the student has successfully completed the certificate program.

Responsibility for Administration and Resources

This certificate program will be offered by the Department of Biological Sciences. It will be administered by the Assistant Department Head for Biological Sciences (Jane Lubischer, PhD) and the Certificate Coordinator (Elizabeth Thompson, PhD). The Certificate Coordinator will perform the following:

- Make admission decisions to the certificate program
- Notify the Dean of the Graduate School of the student’s completion of certificate requirements
- Update program website as needed
- Coordinate the scheduling of courses
- Function as a liaison between the Department of Biological Sciences and the College of Education
- Seek, and oversee spending of, funds in support of course development, marketing, etc.

Program or Policy Changes for this Certificate

All changes in the Graduate Certificate in Biology for Educators or its policies will be discussed and determined amongst participating faculty and the Certificate Coordinator, and will be channeled through all appropriate college committees and the Administrative Board of the Graduate School.

Outcomes Assessment Plan

Objectives

1. In this certificate program, students will expand their knowledge of the biological sciences so that they can then apply that knowledge to develop or improve activities and strategies used in their own teaching.

2. The certificate program will provide an educational experience that satisfies the expectations of its graduates.
Learning Outcomes

1. After completing this certificate program, graduates will be able to:
   a. Identify three areas within the biological sciences in which their knowledge has been improved by courses taken for the certificate.
   b. Describe how they have used (or plan to use) what they have learned from certificate courses to improve their own teaching.
   c. Explain fundamental principles in the neurobiology of learning and relate them to our understanding of how people learn.
   d. Describe how they have used (or plan to use) an understanding of the science of learning to improve their own teaching.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Evidence to be Collected</th>
<th>Source of Evidence</th>
<th>Frequency of Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a (biological knowledge)</td>
<td>Assignments in BSC 580 and assessments completed in other certificate courses</td>
<td>Students</td>
<td>At completion of certificate (when the student enrolls in BSC 580) and at completion of each course taken.</td>
</tr>
<tr>
<td>1b (use of biological knowledge)</td>
<td>Assignments in BSC 580</td>
<td>Students</td>
<td>At completion of certificate (when the student enrolls in BSC 580).</td>
</tr>
<tr>
<td>1c (science of learning)</td>
<td>Assignments in BSC 580</td>
<td>Students</td>
<td>At completion of certificate (when the student enrolls in BSC 580).</td>
</tr>
<tr>
<td>1d (use of their understanding of the science of learning)</td>
<td>Assignments in BSC 580</td>
<td>Students</td>
<td>At completion of certificate (when the student enrolls in BSC 580).</td>
</tr>
</tbody>
</table>

2. After completing this certificate program, graduates are expected to:
   - Be satisfied with the usefulness of the certificate program in enabling them to achieve their personal or professional goals
   - Be sufficiently satisfied with the certificate program to recommend it to others with similar goals
   - Be satisfied with the appropriateness of the courses available through the program.
   - Be satisfied with the frequency and timeliness of courses offered for the certificate
   - Be satisfied with the quality of teaching in certificate courses

All of these outcomes will be assessment through an exit survey administered by the Graduate School annually.
Online Graduate Certificate in Biology for North Carolina State University

This request has been reviewed and approved by the appropriate campus committees and authorities.

Endorsed By:

Gerard A. LaBianca
Head, Department/Director of Graduate Program (Printed Name and Signature)
Date: 8/28/17

Recommended By:

Alvin W. Ward
Chair, College Graduate Studies Committee (Printed Name and Signature)
Date: 9/11/2017

Endorsed By:

John M. Blondin
College Dean (Printed Name and Signature)
Date: 8/29/17

Recommended By:

Thomas F. Miller
Vice Provost, DELTA (if DE degree) (Printed Name and Signature)
Date: 9/15/17

Approved By:

Peter J. Harries
Dean of the Graduate School (Printed Name and Signature)
Date: 9/12/18

Recommended By:

Duane Larice
Dean's Council (Printed Name and Signature)
Date: 4/26/18

Approved By:

Warwick Arden
Executive Vice Chancellor and Provost (Printed Name and Signature)
Date: 9/17/18

Approved By:

W. R. Woodson
Chancellor (Printed Name and Signature)
Date: 6/13/18

(revised August 2015)
N. C. STATE UNIVERSITY
GRADUATE CERTIFICATE PROGRAM FORM

COLLEGE/DEPARTMENT/PROGRAM NAME:
Poole College of Management

DEPARTMENT/PROGRAM NAME:
Accounting

CERTIFICATE TITLE:
Graduate Certificate in Tax Analytics and Technology

TYPE OF PROPOSAL:
New: ☑
Revision: ☐
Discontinuation: ☐

CIP DISCIPLINE#: 52.0301

CERTIFICATE TYPE: On-campus ☒ Distance ☐ On-campus & Distance ☐

PROPOSED OR CURRENT PROGRAM CODE: by Graduate School

PROPOSED EFFECTIVE DATE: August 2017

APPROVED EFFECTIVE DATE:

GRADUATE CATALOG DESCRIPTION
The Graduate Certificate in Tax Analytics and Technology is a one to two year program that targets for enrollment graduate students at NC State and working professionals in the Research Triangle, national and global community. They will learn knowledge and skills to extract, manipulate, analyze, and summarize tax data to solve tax problems, identify opportunities for tax savings, and to effectively communicate actionable tax and business strategies to organizations.

PROJECTED ENROLLMENT
On campus Yr 1 0 Yr 2 0 Yr 3 0 Yr 4 0
Distance Education Yr 1 10 Yr 2 15 Yr 3 20 Yr 4 25

PROGRAM COORDINATOR: Jennie Dirienzo

Attachments:
☑️ 1. Graduate Certificate Proposal
☑️ 2. Statement on Other Departments Likely to be Affected and Summary of Consultations with those Departments – N/A - NO OTHER DEPARTMENTS WILL BE AFFECTED
GRADUATE CERTIFICATE PROPOSAL

The Poole College of Management proposes the creation of a Graduate Certificate in Tax Analytics and Technology. The certificate program is designed to provide access to graduate training in tax analytics and technology to all graduate students with basic tax and accounting knowledge, as well as individuals in the local and national tax community with baccalaureate degrees.

The program supports the goals of NC State’s strategic plan:

1. Enhance student success: Improved understanding of tax analytics and technology will provide students with a solutions-driven approach and allow the opportunity to put ideas to work in the real world
2. Invest in faculty: Expanded opportunities to engage with graduate students will allow us to attract and retain research-oriented faculty
3. Support interdisciplinary scholarship: The certificate program will encourage students from other colleges to take more courses in tax analytics and technology
4. Pursue organizational excellence: The certificate will allow us to offer these courses to our MAC students which will increase our efficiency and enhance the distinctiveness of the MAC program
5. Engage locally and globally: Advanced training in tax analytics and technology should be valuable to many regional, national and global companies

Description:
The Graduate Certificate in Tax Analytics and Technology offers the enrolled students an opportunity to learn about IT tools, enterprise systems, and data analysis in a tax context. The certificate covers a full range of tax and technology topics, with an emphasis on analytics, forecasting, data management, ERP systems, and data security.

Who should enroll
Enrollment is open to the following:
i) All full-time, part-time and on-line MAC students who wish to signal their tax analytics and technology expertise to the job marketplace
ii) Graduate students outside the Jenkins MAC program with basic tax and accounting knowledge who may want to learn tax analytics and technology, and improve their attractiveness to potential recruiters,
iii) Professional accountants who desire in depth knowledge and skills in tax analytics and technology
iv) Lifelong education students with basic tax and accounting knowledge who would benefit from training in tax analytics and technology

Benefits to enrolled students
i) Learn about the latest analytical and data management tools and techniques
ii) Learn how to apply these tools and techniques to actual tax and business situations, using real companies - real data
iii) Learn from seasoned Accounting faculty, many of whom have Ph.D.s from top business schools such as Arizona State, Texas, Florida State, UNC-CH, Tennessee and South Carolina

iv) Learn in an interactive online class setting that fosters an intellectually stimulating environment

v) Improve prospects for employment or career advancement

vi) Networking opportunities with other business students/executives enrolled in the program

**Tuition Structure**
We would like to have a flat, premium (off-model) tuition structure for this program. We expect national and global companies will be sponsoring students in the program and we would like them to be able to utilize the same fee structure whether the student lives inside and outside North Carolina. Students in this certificate program will not be eligible for Federal financial aid.

**Program Structure**
*Management* The program will be housed in the Poole College of Management for administrative purposes. The coordinator will be Jennie Dirienzo.

*Curriculum* Students must complete twelve hours of courses with grades of B– or better in every course. Each course is for one credit hour. This program is currently being piloted through Executive Education to a target market of tax professionals working within the business community and public accounting. Given that much of our target market for the certificate will be working professionals, it was determined that offering one credit hour courses allowed them to better fit them into their busy work schedule. Additionally, the subjects tend to stand alone well and combining them in to a series of three credit hour courses was not optimal.

**Required courses**
- ACC 560 Tools for Tax Analytics
- ACC 561 Database Management in Tax
- ACC 562 Forecasting Effective Tax Rates and Scenario Analysis – Introduction
- ACC 563 Forecasting Effective Tax Rates and Scenario Analysis – Advanced Application
- ACC 564 Project Management and Process Documentation in Tax
- ACC 565 Visual Analytics in Tax
- ACC 566 Database Management Applications in Tax
- ACC 567 Enterprise Resource Planning for Tax
- ACC 568 Analysis of Unstructured Data in Tax
- ACC 569 Advanced Visual Analytics in Tax
- ACC 570 Data Security and Warehousing in Tax
- ACC 571 Enterprise Resource Planning – Advanced Topics

**Admission requirements:** Graduate students at NC State must be in good standing and must submit an application to the certificate program that will be reviewed and approved by the coordinator. Students not attending NC State must have completed a baccalaureate degree. A minimum GPA of 3.0 in undergraduate and graduate work combined is required for admission to the program. Those with less than a 3.0 may be admitted provisionally. Provisionally admitted students must initially take ACC 560 and ACC 561 and earn a grade of B (3.0) or better in each course.

**Application and Completion Processes:**
1. An application for acceptance into a certificate program is required for all new applicants. The applicant must apply via the Graduate School application, found at https://www.ncsu.edu/grad/applygrad.htm
2. Those applicants who are currently enrolled in an NC State graduate program need only provide the Graduate Student Certificate Plan Data Entry form, found at https://grad.ncsu.edu/wp-content/uploads/2015/12/grad-cert-plan-data-entry.pdf
3. Applications from individuals not already enrolled at NC State will be reviewed at the department/program level and will pay a $25 fee.

Each semester, students should contact the Certificate Coordinator to determine registration procedures, course availability and registration dates.

When all certificate coursework is satisfactorily completed, the Certificate Coordinator forwards appropriate information to the Director of Graduate programs for the Poole College of Management who then notifies the Graduate School.

**Standards for the certificate:** Students must complete the required credit hours with a 3.000 GPA in all certificate courses. Credit toward the certificate in a particular course will be received only if a grade of B- or better is earned in the course. All courses in the program must be taken for a letter grade. No transfer credits will be accepted in the program and it must be completed within three years. This particular certificate requires twelve (12) credit hours.

**Relationship to MAC admission:** Applicants will be notified in all applications and promotional materials that “Academic success might have a strong bearing on admission to a degree program BUT completion of a certificate program in no way guarantees entry into a graduate degree program, which is done through a separate application process.”

**Responsibility for Administration and Resources**
This certificate program will reside in the Department of Accounting in the Poole College of Management. The certificate coordinator will be a graduate faculty member from that department. Initially the coordinator will be Jennie Dirienzo. Existing resources will be used to support the administration of this program.

The certificate coordinator will

- Make all admission recommendations to the certificate program
- Notify the Dean of the Graduate School of the student's completion of certificate requirements.
- Function as liaison with academic departments and the Graduate School
- Convene faculty as needed to review the program and discuss possible changes in admission requirements and curriculum
Program or Policy Changes for this Certificate
Changes in the graduate certificate program will be determined by the faculty and channeled through the appropriate departmental/college committees. Changes will be submitted for approval to the Administrative Board of the Graduate School.

Learning assessment
1) Students who complete the Graduate Certificate in Tax Analytics and Technology will be able to:
   1. Identify, extract and transform data from a variety of sources for use in developing tax solutions and planning strategies utilizing differing technologies
   2. Create visually appealing and effective tax focused visualizations and dashboards to support decision making and communication with decision makers
   3. Apply project management and process documentation skills within the context of an income tax provision redesign
   4. Access significant amounts of text data for utilization in tax data analytics to demonstrate its power and importance
   5. Evaluate tax data warehousing alternatives, the role of the Cloud and the importance of tax data security
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Evidence</th>
<th>Source</th>
<th>When?</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Above</td>
<td>Analysis of the assignments imbedded in each of ACC 560, 561, 562, 563, 566, 567, &amp; 571 to ensure that students utilize the different technologies to identify, extract and transform tax data</td>
<td>Student</td>
<td>Throughout the course</td>
</tr>
<tr>
<td>#2 Above</td>
<td>Analysis of the assignments imbedded in each of ACC 565 &amp; 569 to ensure that students create visually appealing and effective tax focused visualizations</td>
<td>Student</td>
<td>Throughout the course</td>
</tr>
<tr>
<td>#3 Above</td>
<td>Analysis of the assignments imbedded in ACC 564 to ensure that students correctly apply project management and process documentation skills</td>
<td>Student</td>
<td>Throughout the course</td>
</tr>
<tr>
<td>#4 Above</td>
<td>Analysis of the assignments imbedded in ACC 568 to ensure that students access significant amounts of text data for utilization in tax data analytics and demonstrate the power and importance of the analytics</td>
<td>Student</td>
<td>Throughout the course</td>
</tr>
<tr>
<td>#5 Above</td>
<td>Analysis of the assignments imbedded in ACC 570 to ensure that students appropriately evaluate tax data warehousing alternatives, the role of the Cloud and the importance of tax data security</td>
<td>Student</td>
<td>Throughout the course</td>
</tr>
</tbody>
</table>

2) At the time they complete this certificate program, graduates are expected to
- be satisfied with the usefulness of the certificate program in enabling them to achieve their professional goals
- be sufficiently satisfied with the certificate program to recommend it to others with the same professional goals
- be satisfied with the appropriateness of the courses in providing the knowledge or training they anticipate needing for their professional goals
- be satisfied with the frequency and timeliness of the courses offered for the certificate
- be satisfied with the quality of teaching in certificate courses
- be satisfied with the overall educational experience of the certificate program

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Evidence to be Collected</th>
<th>Source of Evidence</th>
<th>Frequency of Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be satisfied with the usefulness of the certificate program in enabling them to achieve their professional goals</td>
<td>Exit survey administered by the Graduate School</td>
<td>Students</td>
<td>Upon Certificate Completion</td>
</tr>
<tr>
<td>To be sufficiently satisfied with the certificate program to recommend it to others with the same professional goals</td>
<td>Exit survey administered by the Graduate School</td>
<td>Students</td>
<td>Upon Certificate Completion</td>
</tr>
<tr>
<td>To be satisfied with the appropriateness of the courses in providing the knowledge or training they anticipate needing for their professional goals</td>
<td>Exit survey administered by the Graduate School</td>
<td>Students</td>
<td>Upon Certificate Completion</td>
</tr>
<tr>
<td>To be satisfied with the frequency and timeliness of the courses offered for the certificate</td>
<td>Exit survey administered by the Graduate School</td>
<td>Students</td>
<td>Upon Certificate Completion</td>
</tr>
<tr>
<td>To be satisfied with the quality of teaching in certificate courses</td>
<td>Exit survey administered by the Graduate School</td>
<td>Students</td>
<td>Upon Certificate Completion</td>
</tr>
<tr>
<td>To be satisfied with the overall educational experience of the certificate program</td>
<td>Exit survey administered by the Graduate School</td>
<td>Students</td>
<td>Upon Certificate Completion</td>
</tr>
</tbody>
</table>
Budget

Unless a student is already enrolled in another graduate degree program at NC State, premium tuition will be charged based on the tuition schedule for MBA students. Projected revenue will be as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$180,000</td>
</tr>
<tr>
<td>Year 2</td>
<td>$270,000</td>
</tr>
<tr>
<td>Year 3</td>
<td>$360,000</td>
</tr>
<tr>
<td>Year 4</td>
<td>$450,000</td>
</tr>
</tbody>
</table>

Major expenses will be program overhead.
Tax Analysis and Technology Certificate
North Carolina State University

This request has been reviewed and approved by the appropriate campus committees and authorities.

Endorsed By:

[Signature]
Head, Department/Director of Graduate Program (Printed Name and Signature) 4/18/17

Recommended By:

[Signature]
Chair, College Graduate Studies Committee (Printed Name and Signature) 4/18/17

Endorsed By:

[Signature]
College Dean (Printed Name and Signature) 4/18/17

Recommended By:

[Signature]
Vice Provost, DELTA (if DE degree) (Printed Name and Signature) 4/24/17

Approved By:

[Signature]
Dean of the Graduate School (Printed Name and Signature) 5/24/17

Recommended By:

Duane Lorigan
Dean's Council (Printed Name and Signature) 4/26/18

Approved By:

[Signature]
Executive Vice Chancellor and Provost (Printed Name and Signature) 4/26/18

Approved By:

W.R. Woodson
Chancellor (Printed Name and Signature) 6/13/18

(revised August 2015)
Certificate Title: ___Mathematics Teaching and Learning______________
New: ☒
Revision: ☐

Classification of Instructional Programs (CIP) Discipline # (6 digits): _13.1311_____
*Please ensure that you select the appropriate CIP code for your certificate program. Please consult this website for more information about CIP codes: https://nces.ed.gov/ipeds/cipcode/default.aspx?y=55

Certificate Type:
On-Campus: ☐ Distance: ☒ On-Campus & Distance: ☐

Proposed Effective Date: May 1, 2018_____________________

Director of the Certificate Program: ___Hollylynne Lee__________
Program Coordinator (if different from Director):_____________________________________
Graduate Services Coordinator: __Christy Buck___________
College: __Education___________________________________
Department/Program: ___STEM Education______________

Catalog Description:
The Graduate Certificate in Mathematics Teaching and Learning is an online program that focuses on developing knowledge and instructional approaches in teaching mathematics. The program will primarily serve practicing teachers in middle school through college settings, or those preparing for careers in such settings, who want to expand their expertise related to teaching and learning mathematics. Students will learn how to apply research-based understandings of students’ thinking, pedagogical approaches, and broader educational issues (e.g., discourse and equity) to inform practices of teaching content such as geometry, algebra, and statistics.

Projected Enrollment:
<table>
<thead>
<tr>
<th></th>
<th>On-Campus</th>
<th>Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yr. 1-</td>
<td>___</td>
<td><em>5</em></td>
</tr>
<tr>
<td>Yr. 2-</td>
<td>___</td>
<td>_10</td>
</tr>
<tr>
<td>Yr. 3-</td>
<td>___</td>
<td>_20</td>
</tr>
<tr>
<td>Yr. 4-</td>
<td>___</td>
<td>_30</td>
</tr>
</tbody>
</table>

Attachments:
☒ Proposal Document
☒ Statement of other departments likely to be affected and summary of consultation with those departments
☒ Program-level assessment
☒ Campus Routing Form
☒ Signature Page
Graduate Certificate in Mathematics Teaching and Learning
North Carolina State University

This request has been reviewed and approved by the appropriate campus committees and authorities.

Endorsed By:

Kathy Truddle  Kathy C. Truddle  2/27/2018
Head, Department/Director of Graduate Program (Printed Name and Signature)  Date

Recommended By:

Karen Hollebrands  2/23/18
Chair, College Graduate Studies Committee (Printed Name and Signature)  Date

Endorsed By:

Lee V Stiff  2/26/2018
College Dean (Printed Name and Signature)  Date

Recommended By:

Thomas J. Miller III  4/9/18
Vice Provost, DELTA (If DE degree) (Printed Name and Signature)  Date

Approved By:

Peter J. Harring  5/3/18
Dean of the Graduate School (Printed Name and Signature)  Date

Recommended By:

Dean's Council  5/17/18
(Printed Name and Signature)  Date

Approved By:

Executive Vice Chancellor and Provost  5/3/18
(Printed Name and Signature)  Date

Approved By:

W.R. Woods  6/13/18
Chancellor (Printed Name and Signature)  Date

(revised August 2015)
Graduate Certificate in Mathematics Teaching and Learning

Description and Rationale
The Graduate Certificate in Mathematics Teaching and Learning is an online program that focuses on developing knowledge and instructional approaches in teaching mathematics. The program will primarily serve practicing teachers in middle school through college settings, or those preparing for careers in such settings, who want to expand their expertise related to teaching and learning mathematics. Students will learn how to apply research-based understandings of students’ thinking, pedagogical approaches, and broader educational issues (e.g., discourse and equity) to inform practices of teaching content such as geometry, algebra, and statistics. A critical focus embedded in all courses, and the specific foci of one course, is the ways that advanced technologies can be used to engage students in meaningful mathematical learning opportunities.

The Mathematics Education Masters of Education degree program in the STEM Education department has been a long-standing degree option, and has produced many master teachers in NC that become department heads, district mathematics specialists, and even have worked for DPI as mathematics specialists or professional development providers. When NC revoked additional pay for a masters degree in 2013, the enrollment in our program drastically declined (e.g., current enrollment is 13). In 2015, a funded project that paid tuition for 18 practicing teachers to take 5 masters level courses, led to 10 of them enrolling in our masters program. Six of the eight teachers who did not enroll indicated that while they enjoyed the Mathematics Education masters courses, they did not want to take the masters level Mathematics courses that they perceived to be less relevant to their work as a classroom teacher. Even with lack of extra pay, many teachers (both middle, secondary, and community college) are still interested in continuing their education and see NC State as a desirable place to advance their learning.

We receive many inquiries into our graduate masters program (e.g., 30 inquiries since August 16th), with two dominant questions:

- Can I take classes online?
- What funding is available for masters students?

Most practicing teachers enroll part-time and take 1-2 classes per semester. A barrier in allowing us to serve teachers through a masters program has been a lack of courses offered online, and the cost of tuition.

Teachers can currently earn a graduate certificate (12 hrs) in related areas such as: a) teacher training and educational technology (community college teaching specialization), b) mathematics, c) statistics, or d) statistics education. We would like to propose an online Graduate Certificate in Mathematics Teaching and Learning that could serve teachers not wanting a full masters degree (but could count towards a masters degree), current graduate students in mathematics, or community college instructors who would like to develop expertise in teaching mathematics. Specifically, our graduate certificate in Mathematics Teaching and Learning differs from the graduate certificate in Mathematics offered by the mathematics
department. While these certificate programs may serve the same audiences (grades 6-12 and community college teachers), they have different purposes. Ours is meant to increase teachers’ understanding of issues of pedagogy and to further develop their repertoire of successful research-based teaching techniques. The certificate in Mathematics is meant to deepen and/or broaden teachers’ understanding of advanced mathematical content.

In the past 2 years, four courses in mathematics education have been transitioned to DE courses, EMS 519, EMS 514, EMS 513, and EMS 580. These courses have action research projects embedded in them that can support teachers in pursuing National Board Certification (for which they do still earn a salary stipend), as well as state requirements for those earning initial licensure through an M.A.T. program or an M license through a masters program.

Offering these classes online will broaden our ability to market these courses to teachers, both local and non-local, that may be interested in obtaining a certificate, using a course or two as part of another degree program (e.g., M.Ed. in Mathematics Education, M.A.T. in 9-12 mathematics) or as a non-degree student, perhaps using the course as professional development or to transfer to another institution.

To help kick off the first cohort of students to be enrolled in the certificate program, funds from the STEM Initiative have been awarded, to be spent by June 2018. Three students accepted into the certificate program for Fall 2018 will each be awarded a $2500 scholarship.

**Program Requirements**

Students take graduate-level mathematics education courses that are offered online. The certificate requires 12 hours of mathematics education courses, taken for a grade, at NC State. No courses can be transferred into the graduate certificate program.

Students can **choose four out of the five** courses (12 hrs):

- EMS 510: Interactions in the Mathematics Classroom (to be transitioned to an online course in 2018-19)
- EMS 580: Teaching Mathematics with Technology
- EMS 513: Teaching and Learning of Algebraic Thinking
- EMS 514: Teaching and Learning of Geometric Thinking
- EMS 519: Teaching and Learning of Statistical Thinking

EMS 580 is offered every year in the Fall. EMS 519 is offered every year in Spring. EMS 514 and 513 are offered in alternate Fall semesters, and EMS 510 is offered in Odd year Spring semesters. If enrollment in the rotating courses increases, they could be offered more frequently. As the program grows, additional courses may be developed and offered online (e.g., Teaching and Learning Calculus, Learning School Mathematics from an Advanced Perspective). With current course offerings, students could complete the Graduate Certificate in three or four semesters.

To summarize: Courses available each semester are shown in the following table:
Students could finish the certificate in three semesters if they begin in an odd Fall semester or in two semesters if they begin in an even Fall semester. The longest period of time to complete the certificate would be four semesters.

A grade of C- or better is required for a course to count toward the certificate. A 3.00 GPA is required to earn the certificate.

Academic success in the Graduate Certificate in Mathematics Teaching and Learning might have a strong bearing on admission to a Masters or PhD program. However, completion of a graduate certificate program in no way guarantees entry into a graduate degree program, which must be completed through a separate application process.

**Enrollment Projections:**

To provide more detail to the enrollment projections stated on the cover page, enrollment projections for new and continuing students are as follows, assuming the longest possible time (2 years) to complete 4 courses:

<table>
<thead>
<tr>
<th></th>
<th>YR1</th>
<th>YR2</th>
<th>YR3</th>
<th>YR4</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Continuing</td>
<td>5</td>
<td>5</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>5</td>
<td>10</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>

**Admissions Procedures:**

An application for acceptance into the Graduate Certificate in Mathematics Teaching and Learning is required for all new students. Students must complete the Graduate School application, found at [http://www.ncsu.edu/grad/applygrad.htm](http://www.ncsu.edu/grad/applygrad.htm). Requirements for admission to the certificate program include:

1. completion of a bachelor’s degree in mathematics education, mathematics, or statistics or a related field with a GPA of 3.0 or greater on a 4.0 scale.
2. transcripts of all undergraduate and graduate course work (unofficial copies accepted)
3. a written statement of goals related to enrolling in the Graduate Certificate in Mathematics Teaching and Learning.
International applicants who are not degree-seeking students in an NC State University graduate program can complete the program online. International students will not be able to receive a visa to complete this graduate certificate program in the US.

Those applicants who are currently enrolled in an NC State graduate degree program and in good standing need only submit the graduate student Certificate Plan Data Entry form to the program coordinator.  

**Deadlines:**
Applications will be considered on a rolling basis with the following deadlines:
- Fall: April 1
- Spring: October 15

**Tuition:**
Tuition rates will be the regular graduate tuition rates for distance education.
4 Distance Education courses at approximately $1300/3-credit course for instate students, and $3444/3-credit course for out-of-state students. Total tuition for certificate is $5200 instate, $13776 out-of-state (rates based on current tuition and fees for 2017-2018).

**Program-level Assessment**

**Learning Outcomes:**

1. Graduate certificate students will demonstrate their ability to apply their knowledge of teaching and learning mathematics/statistics content (algebra, geometry, statistics) to support students’ mathematics learning.

2. Graduate certificate students will demonstrate their ability to design lessons that use mathematically-rich tasks to promote students’ conceptual understanding.

3. Graduate certificate students will demonstrate their ability to use different instructional strategies (e.g., discourse, technology) to support students’ mathematics learning.

4. Graduate certificate students will demonstrate their ability to analyze students’ mathematical/statistical thinking.

5. Graduate certificate students will be satisfied with their learning experience in the certificate program.

**Data for Assessing Learning Outcomes**
<table>
<thead>
<tr>
<th><strong>Outcome</strong></th>
<th><strong>Data</strong></th>
<th><strong>Data Source</strong></th>
<th><strong>Collection Date</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate certificate students will demonstrate their ability to apply their knowledge of teaching and learning mathematics/statistics content (algebra, geometry, statistics) to support students’ mathematics learning.</td>
<td>Task design rubric scores</td>
<td>The task design assignment requires students to apply their knowledge of a particular mathematics or statistics topic</td>
<td>A similar task design assignment is offered in EMS 513, EMS 514, and EMS 519</td>
</tr>
<tr>
<td>Graduate certificate students will demonstrate their ability to design lessons that use mathematically-rich tasks to promote students’ conceptual understanding.</td>
<td>Task design rubric scores</td>
<td>The task design assignment requires students to select, modify, or create a mathematically-rich task that can be used to promote students’ conceptual understanding</td>
<td>A similar task design assignment is offered in EMS 513, EMS 514, and EMS 519</td>
</tr>
<tr>
<td>Graduate certificate students will demonstrate their ability to use different instructional strategies (e.g., discourse, technology) to support students’ mathematics learning.</td>
<td>Inquiry project rubric scores</td>
<td>The inquiry project requires students to design an intervention that uses a particular instructional strategy and assess its effectiveness with students</td>
<td>The inquiry project is one course project option that can be completed in any of the EMS courses.</td>
</tr>
<tr>
<td>Graduate certificate students will demonstrate their ability to analyze students’ mathematical/statistical thinking.</td>
<td>Inquiry project rubric scores</td>
<td>The inquiry project requires students to analyze students’ work that results from a particular instructional intervention to determine its effectiveness</td>
<td>The inquiry project is one course project option that can be completed in any of the EMS courses.</td>
</tr>
</tbody>
</table>
Graduate certificate students will be satisfied with their learning experience in the certificate program.

Survey responses

The Graduate Certificate in Mathematics Teaching and Learning Satisfaction Survey will be completed by students at the end of the certificate program.

The task design assignment and inquiry projects will be embedded in the courses students are taking. Rubrics used by the instructor of these courses to rate students’ work on these projects will be submitted to the Coordinator of the Certificate program to use for program evaluation purposes. A Three-point Rubric will allow for rating students as developing, on target or exemplary.

- Developing indicates a student’s knowledge related to teaching and learning mathematics are not well developed and applied, and/or not well communicated.
- On Target indicates a student’s knowledge related to teaching and learning mathematics are satisfactorily developed and applied, and is well communicated.
- Exemplary indicates a student shows evidence of a deep understanding of issues related to teaching and learning mathematics and creatively applies this an assignment and communicates these ideas in an exceptional way.

**Task Design Assignment: Guidelines and Scoring Rubric**

<table>
<thead>
<tr>
<th>Section</th>
<th>Rated on 3 Point Scale</th>
<th>Developing (1), On Target (2), Exemplary (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Introduction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Choose a topic that may be difficult for students to learn. Describe the topic that you are planning to teach and the grade level/course where your task could be taught. Identify the prerequisite skills and concepts that are essential for students to be successful in your investigation. Use references and quotes from sources to help provide a clear justification for why this topic is important for students to understand.
II. Rationale/Justification
You will read 6-8 articles related to the topic you wish to teach. These articles will be used to inform your task design. Develop a rationale to support the methods/activities you will be using in your task. The rationale should contain evidence of a synthesis of the information you learned from reading and justify why different aspects of the task are appropriate and help meet your goals. Describe how parts of the task build upon each other to facilitate students’ learning of the topic.

III. Task and Guide for Teachers
Include the task as you would give it to students (handouts, slides, etc). If students are using any data or technology files these should be included. If you have adapted this task from another source (or sources), the citation for that source should be made clear (you can put in a footer or at end of task). The task should be easy to read for the intended audience and should have the qualities of a worthwhile mathematical/statistical task. The intended length of students’ engagement in the task could be as minimal as 20 minutes, or it could span several class periods.

The guide for teachers should have enough detail about classroom procedures, guiding questions for students, and an outline of what you and the students will be doing throughout the task. Throughout the task, students should be actively engaged in appropriate activities to facilitate their development of the ideas you are teaching.

The format of the teacher guide is flexible but should at the least include a statement of your mathematical/statistical goals and/or objectives, a list of materials needed, approximate times allocated for each activity, guiding questions the teacher will ask, how you will conclude students’ work on the task, etc.

Cite any sources if materials are adapted from existing materials.

IV. References, Writing, Style, and Grammar
Cite all references in proper APA format. Points in this section will also apply to the use of proper citations within the body of the paper. Your report should be organized, and of high quality. Please include a table of contents and proper headings. Points in this section will also apply to the use of proper grammar and spelling within the body of the paper.

Mathematics Education Inquiry Project: Guidelines & Rubric
During their certificate program, each student who would like to be recommended for the Graduate Certificate in Mathematics Teaching and Learning will need to complete this project, which builds from assignments completed during coursework.
| Section of Paper | Rated on 3 Point Scale  
Developing (1),  
On Target (2),  
Exemplary (3) |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>Describe the topic(s) or issue(s) which are the focus of your analysis. Describe why you are interested in the topic/issue and use references from literature to describe the topic or issue and its importance, (e.g., include references to NCTM, GAISE, and Common Core). State the focus research question(s) that you are exploring. (2-3 pages)</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td>Describe the context in which data was collected, participants, and tasks or instruments used. Describe a way of framing your analysis that may help you in characterizing students' understanding of the topic or the issue you are investigating. For example, if the focus topic is on students' understanding of proof, there may exist literature that describes “levels of understanding proof” that could be used to characterize students' work on a task on constructing a proof. You may need to develop your own framework based on the focus of your work and what you know from literature. Describe the analysis procedures used with references to appropriate citations to support techniques used. Techniques should be appropriate for the type of data collected and may combine quantitative and qualitative techniques. (3-4 pages)</td>
</tr>
<tr>
<td><strong>Analysis and Results</strong></td>
<td>Describe your analysis of data and important findings. When appropriate, use tables and graphs to illustrate your points and organize your work. This section should be organized around central themes or findings and not just a running record of what you did. In what ways can/did the results from your project have positive impacts on student learning or teaching? Support your findings/results with data to back your claims. Insert samples of work or quotes to support claims or illustrate your points. (6-7 pages)</td>
</tr>
</tbody>
</table>
**Discussion**

Answer your focus question(s) and discuss what you learned about the teaching or learning of the topic(s) or issue(s) of interest.

Connect your findings with findings from other research about the focus topic(s) or issue(s) of interest.

What new questions about the topic(s) or issue(s) have you formulated that you would like to explore?

(2-3 pages)

**References and Grammar**

Provide a reference list of literature used in proper APA format. Minimum of 6 research references should be used. Points in this section will also apply to the use of proper citations in APA format within the body of the paper. Your report should be organized, and of high quality. Please include a table of contents and proper headings. Points in this section will also apply to the use of proper grammar and spelling within the body of the paper.

Annually, the program faculty will review the data from these sources as part of a program review to determine if the courses and assignments are meeting the needs of our students and allowing students to meet the learning outcomes. Changes may be made accordingly if the learning outcomes are consistently not being met (overall majority at the On Target level or above).

**Satisfaction Survey**

The following survey will be administered to students upon completion of the last class and awarding of the graduate certificate. The results will also be reviewed annually to determine if the program is meeting the needs of our students.

1. Based on your experiences in the online certificate program, what do you perceive to be the strengths and weaknesses of the online mathematics teacher education courses (EMS 510, EMS 513, EMS 514, EMS 519, EMS 580)?
   
   **Strengths:**
   
   **Weaknesses:**

2. To what extent did the certificate program prepare you to be competent in the following:
   
   (scale 1-5: 1 not prepared, 2 somewhat unprepared, 3 neutral, 4 well prepared, 5 exemplary preparation)

   a. Knowing mathematics/statistics content
   
   b. Planning for instruction around mathematically rich tasks
c. Implementing mathematics instruction centered around students' mathematical/statistical thinking

d. Using a variety of instructional strategies (technology, discourse) to promote students’ mathematical/statistical thinking

e. Analyze students’ mathematical/statistical thinking

3. While you were enrolled in the graduate certificate program were you a part-time or full-time mathematics/statistics instructor? a)Yes b) No

If yes, what specific knowledge or experiences from the graduate certificate program did you draw upon in your own teaching practice? (open ended response)

4. Would you recommend this graduate certificate program to others interested in improving their mathematics teaching practice? a) Yes b) No

Statement of Consultations with Other Departments

On February 12, 2018, emails were sent to graduate coordinators in three different programs for consultation requesting they review our proposed program and let us know of any conflicts or concerns.

1. Community College Teaching--Duane Akroyd
2. Mathematics--Pierre Gremaud
3. Statistics--Wenbin Li

Consultation with Community College Teaching graduate program

Re: Consultation on Grad Certificate in Mathematics Teaching and Learning

Duane Akroyd

to me, Tuere, Michelle

Hollylynne

In consultation with the AWCPE faculty who work with our certificate and our community college students and we have no objections to the certificate.

Duane

Consultation with Mathematics graduate programs.

In addition to the email sent on 2/12/18, a meeting was held between graduate coordinators and also included several faculty in mathematics on 2/19/18. They gave feedback that was incorporated into the proposal (e.g., making the distinction between
graduate certificates in Mathematics and the proposed one in Mathematics Teaching and Learning), and are in support of the program. Coordinator Pierre Gremaud is consulted further with a department-level graduate committee of faculty to ensure uniform support and write the following email on 2/19/18.

Re: Consultation for Grad Certific proposed in Mathematics Teaching and Learning

Pierre A Gremaud

Dear Hollylynne,

Thank you for sharing with us your proposal for an online graduate certificate in Mathematics Teaching and Learning. We have no objection to the development of the proposed activities. In fact, as your proposed certificate aims at providing its graduates with an improved understanding of pedagogical issues pertaining to the teaching of mathematics whereas ours concentrated on mathematical content, we see here several areas of potential synergy. We are looking forward to extending our discussions and collaboration regarding graduate programs and hope for a prompt approval of your current proposal.

Best regards,

Pierre

Consultation with Statistics graduate programs

Re: COnsultation for Grad Certif in Mathematics Teaching and Learning

Wenbin Lu

Hi Hollylynne,

I read the proposal. It looks good to me. I have no comments or concerns. I think it may be attractive to some of our master students who have background in mathematics/statistics Education in high school or college.

Best,

Wenbin
Proposed Online Graduate Certificate in Mathematics Teaching and Learning

Graduate certificate targeting practicing math teachers in middle school through college. Expected steady-state enrollment up to 30 students.

This program is differentiated from others in Departments of Mathematics and Statistics by its focus on the pedagogy and learning of math, rather than its practice. Consultations with those departments, and also with the Community College Teaching program, were supportive of the proposed Certificate in Mathematics Teaching and Learning.

The proposed program will be fully online. No new resources are requested, but implementation of the program will require conversion of two site-based DE courses (EMS 510 and EMS 514) to an online format. Other courses in the certificate (EMS 513, EMS 519, and EMS 580) are, or have been, taught online already. Currently all these courses are offered as Flexible Access.

Overall, there seem to be no significant issues with the proposed new online certificate and I believe that it should be recommended by the Vice Provost, DELTA.