CALL TO ORDER
Ann Goodnight, Chair

ROLL CALL
Ann Goodnight, Chair

READING OF STATE GOVERNMENT ETHICS ACT CONFLICT OF INTEREST STATEMENT
Ann Goodnight, Chair

1. CONSENT AGENDA

A. Approval of September 20, 2018 Minutes (open & closed session) 7.1A
B. Request to Establish Centers/Institutes 7.1B
   a. The Moise Khayrallah Center for Lebanese Diaspora Studies (KCLDS)
✔️ C. Request to Change Degree Program Title 7.1C
   a. Masters of Education in Science Education to Masters of Education in Science, Technology, Engineering and Mathematics Education (STEM Ed)
✔️ D. Request to Discontinue Degree Programs 7.1D
   a. Masters of Education in Technology Education
   b. Masters of Education in Mathematics Education
E. Designation of Time Limited Option for Distinguished Professorships 7.1E

2. REQUESTED ACTION

✔️ A. Consideration of Campus Initiated Tuition Increase and Student Fees 7.2A
   Presenters: Chancellor W. Randolph Woodson, Executive Vice Chancellor and Provost Warwick Arden and Vice Chancellor and Dean Michael Mullen

✔️ B. Premium Tuition Request: Foundations of Data Science 7.2B
   Presenter: Duane Larick, Senior Vice Provost, Academic Strategy & Resource Mgt.

✔️ C. Undergraduate Degree Programs: 120 Credit Hour Exception Requests 7.2C
   Presenters: Vice Chancellor and Dean Michael Mullen and Senior Associate Dean Bret Smith

✔️ Denotes full Board approval required
D. Department of Athletics Bonus Structure for Track & Field and Cross Country
   Presenter: Deborah Yow, Director of Athletics
   Rationale: Requires approval per Non-Salary and Deferred Compensation Policy 05.15.03.

3. REPORTS
   A. December 2018 Commencement Speaker (no materials)
      Presenter: Chancellor W. Randolph Woodson
   B. Faculty Senate Report
      Presenter: Carolyn Bird, Chair
   C. Staff Senate Report
      Presenter: Jason Painter, Chair
   D. Provost Update
      Presenter: Warwick Arden, Executive Vice Chancellor and Provost
      a. Academic Programs Update
         • New Undergraduate Certificate in Field Botany
         • MOA for Dual Degree Partnership - College of Textiles and Zhejiang Sci-Tech University
      b. Faculty Retention Report (no materials)

4. CLOSED SESSION
   A. Personnel Matters
   B. Honorary Awards

5. RECONVENE OPEN SESSION

6. ADJOURN

✓ Denotes full Board approval required
CONSENT
AGENDA
ITEMS
The University Affairs Committee of the Board of Trustees of North Carolina State University met September 20, 2018 in the Winslow Hall Conference Room.

Members Present:  Ann Goodnight, Committee Chair
                 Tom Cabaniss
                 Jess Errico
                 Ron Prestage
                 Susan Ward

Chair Goodnight called the meeting to order at 1:19 p.m. The roll was called and 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.

Committee Responsibilities and Plan of Work
Provost Arden provided a brief overview of the committee’s responsibilities. He noted that in an effort to maximize efficiency, the committee adopted a consent agenda format for items that have been through comprehensive evaluation processes on campus, e.g., conferral of tenure requests, center and institute requests and new academic programs. He explained a committee member may request an item be pulled from the consent agenda for discussion as needed.

In reference to the committee’s plan of work for the year, Chair Goodnight noted that the plan is a working document that can be updated as the year progresses. She explained that much of the committee’s work is prescribed by policy; however, utilization of the consent agenda will allow more time for brief presentations on topics of interest. Input from committee members on topics of interest is welcome.

Consent Agenda
A motion was made by Mrs. Ward to approve the consent agenda items which included approval of the July open and closed session meeting minutes; continuation of two Centers, the Advanced Self Powered Systems of Sensors and Technologies Center (ASSIST) and the Center for Marine Sciences and Technology (CMAST); designation of a time limited option for eighteen distinguished professorships; and conferral of tenure to two new faculty members. Mr. Cabaniss seconded the motion. The motion carried.

Requested Action
Director of Athletics Deborah Yow discussed updates to the bonus structure for baseball. She explained incentive compensation for the head coach and staff are in keeping with those utilized for all sports. Mr. Cabaniss moved to approve the bonus structure as presented. Mrs. Ward seconded the motion. The motion carried.

Informational Reports
The annual enrollment report highlighted changes in overall graduate and undergraduate enrollment; academic quality of the incoming freshman cohort, and undergraduate student success data. Overall enrollment for Fall 2018 was 35,479, which is the largest in NC State’s history. The freshman cohort was also the largest in history at 4,845 students. Similarly, the university enrolled its largest group of transfer students at 1,345. The academic profile of these students met or exceeded previous cohorts. The university’s four, five, and six-year graduation rates are at record highs. Initiatives to enhance diversity and student success were also discussed. Provost Arden commended Dr. Louis Hunt and his team in Enrollment Management and Services for their work in helping the university achieve success in this area. A question was asked about the status of the Board of Governors 120 course hour policy. The Provost responded that the BOG passed a policy revision that undergraduate programs should be 120 credit hours unless the Board of Trustees approves an exception. The university is reviewing programs now to determine how many can be revised to 120 credit hours and which ones will request exceptions. Exception requests will be brought to the Board of Trustees in November.
Next, a presentation on the UNC System-Wide Employee Engagement Survey was given. The survey is part of a five-year project developed by the University of North Carolina system to help achieve the goals of the UNC strategic plan. The survey was administered to NC State’s 8,538 full-time permanent employees during spring 2018 and will be administered again in 2020 and 2022 to gauge progress. The results of the survey indicate NC State did well in relation to the other systems institutions: NC State’s overall response rate of 54% (4,633 of 8,538) exceeded the UNC System Office’s target response goal of 50%; NC State employees gave consistently more favorable ratings than the UNC system overall; and areas rated less favorably by NC State employees are also rated less favorably by the system overall. The NC State Employee Engagement Survey Advisory Group will oversee and monitor the University’s progress in enhancing our survey scores for the strategic focus areas identified for the period 2018-2020.

Student Body President Jess Errico provided an update on programs and initiatives in Student Government. In partnership with University Dining, Student Government led the way in advocating for a student-to-student meal sharing program for students facing short-term food insecurity. In response to a need expressed by students last semester, Student Government collaborated with Campus Enterprises to identify an interfaith prayer space convenient to students in Talley Student Union. Student Government has added an executive department on Student Health to advocate on topics such as emotional, physical, social, financial and environmental wellness. Finally, Ms. Errico noted that she and other student body officers are listening to students to determine the best ways they can make changes on campus while also informing students about existing resources available to them for which they may not be aware. Chancellor Woodson acknowledged Ms. Errico and her colleagues for the job they did to help inform students about campus resources available in the wake of Hurricane Florence.

Provost Arden provided an update on the 2018-2019 faculty salary ranges and leadership position searches that are underway this academic year. The faculty salary ranges are established for tenured/tenure-track faculty positions based on current market data and have been approved by the Chancellor for this academic year. Provost Arden noted that the issue of faculty salaries and moving them forward continues to be an important issue for him and the Chancellor. The Provost noted this will be a busy year for leadership position searches. Searches for the Executive Director of the Friday Institute and Senior Vice Provost and Director of Libraries are underway. There are four finalists for the Libraries position and on-campus interviews are expected to occur in the next few weeks. Searches for Dean of the Graduate School, Dean of the Poole College of Management, Vice Provost for Equity and Diversity and Vice Provost for Continuing Education will all commence this academic year.

**Topic of Interest/Committee Discussion**

Provost Arden gave an overview of the promotion and tenure process at NC State, including a brief history of the origins of academic tenure. The tenure track faculty life cycle begins with a rigorous and competitive search process. The promotion and tenure decision process includes a comprehensive internal review at the department, college and university levels as well as external evaluations by at least five accomplished scholars who are not part of the NC State community. Once tenure is achieved, faculty receive a post-tenure review by peers, the department head and dean every five years. In response to questions, Provost Arden explained that in general new faculty hired with tenure had already achieved tenure at their previous institution and therefore an abbreviated tenure review occurs on campus. He also noted that the most recent substantive change to the tenure policy was to introduce more specific procedures for faculty with interdisciplinary appointments.

**Closed Session**

A motion was made by Dr. Prestage, and seconded by Mrs. Ward, to go into closed session 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 Goodnight announced the meeting in open session.

Dr. Prestage moved to approve the personnel items discussed in Closed Session related to the approval of two head coach employment agreements and salary actions for the Tier I positions of Deans. Mrs. Ward seconded the motion. The motion carried.
With no further business, Chair Goodnight announced the meeting adjourned at 2:59 p.m.

Ann Goodnight, Chair
MEMORANDUM

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

FROM: W. Randolph Woodson  
Chancellor

SUBJECT: Recommendation to approve the request to establish the Khayrallah Center for Lebanese Diaspora Studies (KCLDS) under Regulation 10.10.04

DATE: October 25, 2018

In response to your Memorandum dated October 24, 2018, authorization is hereby granted to forward the request for establishment of the Khayrallah Center for Lebanese Diaspora Studies (KCLDS) to the Board of Trustees for approval.

WRW/mh

cc: Jeffery Braden, Dean, College of Humanities and Social Sciences  
Akram Khater, Director, KCLDS  
Mladen Vouk, Associate Vice Chancellor, Research Development  
Jonathan Horowitz, Assistant Vice Chancellor, Research Administration  
Larisa Starks, Senior Administrative Coordinator -- Centers and Institutes
MEMORANDUM

TO: W. Randolph Woodson  
   Chancellor  
   NC State University

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

SUBJECT: Recommendation to approve the request to establish the Khayrallah Center for Lebanese Diaspora Studies (KCLDS) under Regulation 10.10.04

DATE: October 24, 2018

In keeping with NC State Regulation 10.10.04, this memo requests your approval of the request by the College of Humanities and Social Sciences (CHASS) to establish the Khayrallah Center for Lebanese Diaspora Studies (KCLDS). KCLDS’ mission is to research, preserve and publicize the history of the Lebanese diaspora communities in the United States and beyond.

KCLDS was approved for planning on September 24, 2014, and is funded by a generous philanthropic gift of $8.1 million dollars from Dr. Moise Khayrallah. KCLDS will become NC State’s first Center focused on the Humanities, marking it a milestone for CHASS and the University. The Khayrallah Center’s focus on the Lebanese Diaspora will advance the College’s strategic priority for generating scholarship on migration and movement of populations around the globe, and will enhance the University’s strategic priority for interdisciplinary scholarship with a global focus. Indeed, the Khayrallah Center will be the first interdisciplinary entity at NC State committed to advancing personal, historical and cultural understanding of migration, movement, and the immigrant experience. Given that equivalent Centers for the study of Lebanese or Middle Eastern migrations and diasporas do not exist within the UNC System, North Carolina, the U.S. or the world, KCLDS will be a unique global asset.

KCLDS has already established itself as a leader in its area of focus, and is an important resource for the citizens of North Carolina, the nation and citizens around the globe. I request your approval of the proposal to establish this Center.

AHR/mh

cc: Jeffery Braden, Dean, College of Humanities and Social Sciences  
    Akram Khater, Director, KCLDS  
    Mladen Vouk, Associate Vice Chancellor, Research Development  
    Jonathan Horowitz, Assistant Vice Chancellor, Research Administration  
    Larisa Slark, Senior Administrative Coordinator – Centers and Institutes
Mission and Objectives
The mission of the Khayrallah Center for Lebanese Diaspora Studies is to research, preserve and publicize the history of the Lebanese diaspora communities in the United States and beyond. The Khayrallah Center will be the first and only Center of its kind in the U.S. and the world. This groundbreaking Center will be a leading world-class institution that:

- Shapes and advances research into Lebanese migrations;
- Produces public historical projects that preserve and highlight the history of the Lebanese Diaspora;
- Advances public discussion on immigration, in general, through scientific and research-based publications, presentations, public policy forums and public outreach.

The Khayrallah Center will accomplish this agenda by the following means:

- Organize international conferences on Middle Eastern migration and diaspora, that brings together the top scholars in the field;
- Build an online digital research archive for the history of the Lebanese Diaspora in the Americas;
- Host visiting scholars and provide them with access to its archive;
- Publish an online journal dedicated to the Lebanese Diaspora that includes scholarly articles and artistic productions; and
- Train Public History students to become the next generation of scholars advancing Lebanese Diaspora studies.

With these scholarly activities, the Khayrallah Center will gain recognition as the premier Center for scholarship and research on the Lebanese Diaspora.

In addition, the Khayrallah Center will dedicate itself to the production and dissemination of public historical projects relating to the Lebanese Diaspora. The scope of our public history outreach will include:

- Video productions;
- Museum exhibits;
- Digital Humanities projects;
- K-12 curriculum development and dissemination through teacher workshops that are held periodically to help select teachers from across the U.S. develop lesson plans that integrate the story of the community into the history of the U.S. and their
particular state;

- Training volunteers from across the U.S. to collect oral histories of the Lebanese-Americans and to preserve their stories in an on-line freely accessible archive;
- Social media outreach (YouTube channel, Twitter feeds, blogs, etc.);
- Annual artistic production competition centered around themes of Lebanese-American experiences;
- Develop technologies, such as Arabic Optical Character Recognition (OCR), to facilitate research, preservations of history and outreach.

The Khayrallah Center will become NC State’s first Center focused on the Humanities, marking it a milestone for the University and the College of Humanities and Social Sciences (CHASS). The Khayrallah Center’s focus on the Lebanese Diaspora will advance the College’s strategic priority for generating scholarship on migration and movement of populations around the globe, and will enhance the university’s strategic priority for interdisciplinary scholarship with a global focus. Indeed, the Khayrallah Center will be the first interdisciplinary entity at NC State committed to advancing personal, historical and cultural understanding of migration, movement, and the immigrant experience. As a result, the Khayrallah Center will break new ground not only by advancing the study and understanding of the Lebanese experience, but also by recognizing the unique value and importance the humanities bring to understanding our place in the world, and in particular to understanding a key element of today’s world: human population movements. This will allow the Center to engage and help shape one of the most critical national and international conversations.

Relationships

One of the key elements in the mission of NC State University is engagement with the public through extension and outreach. Another core principal is the creation and application of knowledge to provide leadership at a national and global level in social issues. The proposed Khayrallah Center is designed to fulfill each of these goals.

Engagement

The Center will be established on two pillars: the first is public engagement. Working with the Ph.D. program in Public History as well as other graduate and undergraduate programs within the College of Humanities and Social Sciences and other colleges, the Khayrallah Center will develop a series of programs, events, and products that are meant to transmit knowledge to the general public in an engaging and accessible manner. Below is a list of activities the Center has undertaken over the last three years that illustrates the type of engagement it will continue to develop and foster.

- The precursor to the Center, the Khayrallah Program, has produced a documentary that has been watched by over 100,000 people (through cinema screenings across the US, classroom use, broadcast on WUNC TV and public access channels, as well as Mercury Media (a subscription streaming service in Lebanon), and excerpts of the documentary were broadcast on commercial TV stations in Lebanon and Australia);
• The Center developed curriculum for K-12 students and educated more than 100 teachers on the Lebanese-American community and its role in North Carolina;

• The Center’s online archive now houses hundreds of thousands of documents, thousands of objects and over 300 hours of interviews, and is continuing to grow into a premiere and unique historical research archive;

• The opening of the *Cedars in the Pines* museum exhibit in 2015 was the culmination of the Center’s oral history project and it has received widespread media attention within North Carolina. Over the following two years it drew an estimated 20,000 visitors to three museums (NC Museum of History, Tryon Palace in New Bern, and Levine Museum of the New South in Charlotte). We have also developed a traveling exhibit, *The Lebanese in America*, that has toured the United States for the past two years;

• The Center held dozens of events pertaining to Lebanese culture (e.g., film screenings, speakers, festivals) that have attracted more than 5,000 attendees;

• The KCLDS social media and newsletter provide daily, weekly and monthly contacts with over 50,000 individuals globally.

KCLDS will continue to pursue such projects, and expand their scope within North Carolina, as well as nationally and internationally.

**Knowledge Production**

The production and dissemination of knowledge is the second pillar of the proposed Khayrallah Center. It will be a focal point in scholarship on the Lebanese Diaspora, and by extension on migration studies, which is vital in today’s globalized world with a more mobile population than ever before. This knowledge will be developed through research carried out at the center, as well as through the creation of an international network to connect and facilitate the work of scholars outside NC State.

The PhD in Public History at NC State marks a new chapter in our commitment to scholarly excellence and public service. It is one of only three doctoral programs in the nation focused on Public History, and the only one in the state of North Carolina. Chancellor Woodson and Provost Arden not only vigorously advocated for the establishment of the Program, they also allocated funding for its support. Chancellor Woodson stated that “Public History exemplifies the kind of engaged scholarship that NC State encourages; it also comports perfectly with its land-grant mission.” The Khayrallah Center will be a laboratory for doctoral students in Public History, as they design and carry out research projects pertaining to Diaspora Studies with emphasis on the Middle Eastern experience.
Existing Structures
Currently there are no equivalent Centers for the study of Lebanese or Middle Eastern migrations and diasporas anywhere within North Carolina, the UNC System, or the US for that matter. More to the point — and with the exception of the Latino Migration Project at UNC Chapel Hill’s Institute for the Study of the Americas— there is no Center or Institute within the UNC system that is dedicated to the study of human migration. This makes the Khayrallah Center not only unique but also a critical key element in the contemporary politics and economics of the world, and certainly in the US.

Organizational Structure

Director
Dr. Akram Khater will be the director of the Khayrallah Center. Dr. Khater is a professor of history in the College of Humanities and Social Sciences, a University Faculty Scholar, and the Khayrallah Distinguished Professor in Lebanese Studies. Dr. Khater launched the pilot project, The Lebanese in North Carolina, which collected documented the history of the Lebanese in the state and produced a documentary and museum exhibit narrating that story. It was through the overwhelming success of this initial project that Dr. Khater worked with Moise Khayrallah to secure an $8 million gift to NC State to fund the establishment of the future Khayrallah Center. In addition, Dr. Khater is recognized internationally as the leading scholar on Lebanese immigration. He has published a substantial number of articles and reviews, and has made conference presentations throughout the United States and internationally. He has delivered over 400 talks in the past 10 years on topics relating to the Middle East. Professor Khater has been awarded a number of teaching accolades (Outstanding Teacher, Outstanding Junior Faculty and Outstanding Extension Faculty) and grants during his tenure at N.C. State, and has also obtained fellowships from the National Humanities Center, American Philosophical Society, National Endowment for the Humanities, Fulbright Foundation, and the Council of American Overseas Research Centers, among others. His professional affiliations include the Middle East Studies Association, Arab-American Studies Association, American Academy of Religion, and the American Historical Association. He is also the editor of the International Journal of Middle East Studies, and sits on the editorial board of a book series on immigration studies.

The Khayrallah Center Director will implement the mission of the Center through the following activities:

- Financial leadership and main responsibility for fundraising to continue enhancing the endowment of the Khayrallah Center. These enhancements will be directed at specific goals including video productions, hiring new faculty specializing in areas of interest to the Center, underwriting research projects, public history presentations, and more;

- Lead scholarship and research on the Lebanese Diaspora, and represent the Center at scholarly conferences. In addition, the director will attract outstanding scholars to the
Khayrallah Center to enhance the scholarly impact, profile, and status of the Center by adding to and extending research on Lebanese immigration;

- Oversee and help organize all Center events, including the selection and awarding of the annual Khayrallah Prize in scholarship and the arts;
- Publish the online scholarly journal, *Mashriq & Mahjar*;
- Initiate and oversee all research projects undertaken by the Center; and
- Convene an Advisory Committee to provide support and expertise in the development of the Center, and to whom the Director will submit an annual report.

The Khayrallah Center is located in CHASS. The Center director reports directly to the Associate Dean for Research in CHASS, and is a faculty member in the Department of History.
**Advisory Committee**

The Advisory Committee will be made up of prominent Lebanese-Americans who help advance and expand the Center’s mission:

- The Advisory Committee will meet once a year during Spring semester on the NC State campus.
- Through personal investment, active involvement and engagement, the *Khayrallah Center’s* Advisory Committee will enhance the welfare and development of the Center through advocacy, fund-raising, and service. Committee members will be effective spokespersons for the role of the Center across the state and beyond. Through their contacts, members will be effective liaisons for generating interest in the Center’s activities and for helping to develop the financial resources necessary to ensure the success of the Center’s mission.

**Budget Estimate**

The *Khayrallah Center* was funded initially by a gift from Dr. Moise Khayrallah totaling $8.1 million dollars. This gift supports an endowed chair in Lebanese Diaspora Studies, as well as KCLDS. Endowment payments are scheduled as follows:

- Payments received (including annual operating funds):
  - $3,970,000
- Schedule of remaining payments:
  - June 2019: $500,000
  - March 2019: $1,865,000
  - March 2020: $1,915,000

The College of Humanities and Social Sciences made a request to the State of North Carolina for $667,000 in matching funds (to add to the $1,333,000 provided by Dr. Khayrallah) to permanently endow the Khayrallah Chair in Lebanese Diaspora Studies. These funds were secured in 2017.
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**TOTAL**

$8,527,192.50 $4,747,192.33 $3,780,000.17 $3,780,000.17
Khayrallah Center Estimated Annual Budget (Year 1)

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<td>1.2</td>
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<td>Program Assistant (.50 FTE)</td>
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<td>Summer Internships</td>
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<td>Visiting Scholars Program</td>
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<td>Archive (Acquisition/Digitization)</td>
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<td>Khayrallah Prize (Scholars, Artists)</td>
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<td>Documentary/Conferences</td>
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<td>Visiting Lectures and public events</td>
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| TOTAL EXPENDITURES | | **$298,340** |
## PERSONNEL

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</tr>
</thead>
<tbody>
<tr>
<td>Center Director/Endowed Chair</td>
<td>$13,720</td>
</tr>
<tr>
<td>Assistant Director</td>
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</tr>
<tr>
<td>Public History Graduate Students 400 hours @ $12/hr</td>
<td>$2,288</td>
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<tr>
<td>Archivist (.667 FTE)</td>
<td>$1,810</td>
</tr>
<tr>
<td>Program Assistant (.50 FTE)</td>
<td>$1,598</td>
</tr>
<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>$28,785.00</strong></td>
</tr>
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</table>

## TRAVEL

<table>
<thead>
<tr>
<th>Item</th>
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</thead>
<tbody>
<tr>
<td>Travel (air, ground)</td>
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<tr>
<td><strong>Sub-Total</strong></td>
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</table>

## SUPPLIES

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Supplies (Equipment, etc.)</td>
<td>$5,000</td>
</tr>
<tr>
<td>Subscriptions (Database hosting, memberships, etc.)</td>
<td>$1,800</td>
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<tr>
<td>Postage &amp; Telecommunications</td>
<td>$4,000</td>
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<td><strong>Sub-Total</strong></td>
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## OTHER

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<tr>
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<tbody>
<tr>
<td>Summer Internships</td>
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<tr>
<td>Artist in Residence</td>
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<tr>
<td>Visiting Scholars Program</td>
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<tr>
<td>Archive (Acquisition/Digitization)</td>
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<tr>
<td>Khayrallah Prize (Scholars, Artists)</td>
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<tr>
<td>Documentary/Conferences</td>
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<tr>
<td>Visiting Lectures and public events</td>
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<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>$79,500.00</strong></td>
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## TOTAL EXPENDITURES

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<tr>
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</thead>
<tbody>
<tr>
<td><strong>TOTAL EXPENDITURES</strong></td>
<td><strong>$298,340</strong></td>
</tr>
</tbody>
</table>
Space and Capital Requirements Needs
The Khayrallah Center has secured office space in the College of Humanities and Social Sciences. This suite of offices is located at Withers Hall, Suite 332, and it provides ample space for the director, researcher, program assistant, visiting scholars, and graduate and undergraduate students. In addition, the Khayrallah Center has storage space made available to it by the Department of History, and that is located in Withers Hall, Room 473. Finally, and for the purpose of its physical archive, the Khayrallah Center has secured storage space in the Special Collections vault in the D. H. Hill Library.

The Center is fully furnished and equipped and will not require any major resources for capital equipment. Additional monetary commitments for the Khayrallah Center are not needed, or have been made.

Effects on Instructional Needs
The Khayrallah Center will provide a unique opportunity for graduate students to gain experience in digital humanities, archives, oral history, museum design, documentary film making, and other forms of public history. In the last three years, the Center has provided the opportunity for over 20 students to conduct research, and will continue to do so. This opportunity applies to graduate students in History and the Humanities as well as students from other colleges, such as Engineering, Design, and Natural Resources. For example, KCLDS is currently working on developing a breakthrough OCR (optical character recognition) software for Arabic language. This will enable the Center to transform digital images of Arabic newspapers, journals, and manuscripts into searchable text, something that is currently very difficult to attain. For this project KCLDS is working with the Laboratory for Analytic Sciences, a Ph.D. student in Communications, Rhetoric and Digital Media (CRDM), a Ph.D. student in statistics, and a graduate student in computer science.
Program Curriculum Changes

Masters of Education in Science Education
Proposed to change to
Masters of Education in Science, Technology, Engineering, and Mathematics Education

Background: The STEM Education Department seeks to combine its three Master's programs to be consistent with its reorganization of its doctoral programs. In 2017 our doctoral degrees became a Ph.D. in Learning and Teaching in STEM Education. Similarly, we request to merge our three Master's programs - in mathematics education, science education and technology education - into one STEM Education Master's degree program. We want to have three concentrations: Mathematics and Statistics Education, Science Education and Engineering and Technology Education. Each of these degrees will have a shared course, and will consist of 30 credit hours.

We will accomplish our reorganization by (1) discontinuing our Master of Education programs in Mathematics Education and Technology Education, and (2) renaming our master's program in Science Education to Science, Technology, Engineering, and Mathematics Education.

Note that our current MS programs are not affected by this change and we will make sure to communicate that to our MS students.

Proposed changes:

Name Change:

Prior name: Science Education

New Name: Science, Technology, Engineering, and Mathematics Education

b) Number of credit hours: change from 36 hrs to 30 hours.

c) Admissions requirements are the same. 3 references, min 3.0 undergraduate GPA, personal statement.

d) New preferred CIP code: 13.1399

Logistics:

This change will go into effect Fall 2019. Current students will be allowed to switch over to the new option if they desire, or continue in their Plan of Work until completion. The teach out plan for current students is that if they have already started in our old plan, as late as Fall 2018, they will be allowed to choose to stay in the plan until graduation, no later than Fall 2024 (maximum 6 year window). We will start the recruitment process in spring of 2019.
Current Curriculum--36 hrs

Science Education Core (12 semester hours)

- EMS 575 Foundations of Science Education (3)
- EMS 521 Advanced Methods in Science Education I (3)
- EMS 522 Advanced Methods in Science Education II (3)
- EMS 573 Technology Tools for Science Teaching (3)

Focus Area (6 semester hours)

Courses may be taken to develop expertise in areas such as College Science Education, Teacher Education (Elementary, Middle or High School) or Informal Education. Focus areas include but are not limited to:

- Middle School Education (ECI 550, ECI 551, PSY 582)
- Special Populations (ECI 500, ECI 570, ELP 515)
- Thesis Research (EMS 695)
- Mentoring Preservice/Inservice Teachers (ECI 641, ECI 651)

Science (additional 6 hours in a specific content concentration)

Science Courses (15 semester hours) 400-level or above

(Note: No more than six credit hours of 400-level courses may be counted toward the degree, and they may not come from the major field). 3 hours may be a research experience.

Research (3 hrs)

- EMS 531 Introduction to Research in Science Education (3)
Proposed Curriculum--30 hrs

Core Course  3 hrs
EMS 573 Design of Tools and Learning Environments in STEM Education

Concentration-specific Courses 27 hrs

Three concentrations: Science Education, Engineering and Technology Education, Mathematics and Statistics Education

For each concentration, there will be 12 hours of courses specific to the concentration (mathematics education, science education, technology education) and 15 hrs of specialty content courses that students can take to deepen their content disciplinary knowledge (e.g., ST 508, MA 509, EAC 559, NTR 515)

- Transcript Notation: This degree will be noted on the student's transcript as either:
- Program Name: “Master of Education in Science, Technology, Engineering and Mathematics Education”
- Concentrations: [Student will choose one of these subplans]
  - Science Education
  - Engineering and Technology Education
  - Mathematics and Statistics Education
M.Ed. in Science Technology Engineering and Mathematics Education

Curriculum: 30 hrs
Core Course 3 hrs (All three concentrations take this course. Existing course that will undergo only a name change)
EMS 573 Design of Tools and Learning Environments in STEM Education

Speciality Courses 27 hrs

Science Education Concentration
- 12 hrs of science education courses
  - EMS 521 Advanced Methods in Science Education I (3)
  - EMS 522 Advanced Methods in Science Education II (3)
  - EMS 531 Introduction to Research in Science Education (3)
  - EMS 575 Foundations of Science Education (3)
- 15 hrs of specialty content courses from an estimated 200 options, such as: Bio 592, BCH 553, NTR 515, NTR 624, FOR 595, FOR 501, HS 541, MEA 517, MEA 582, EA 501, EA 503, PHY 552, PY 582.

Mathematics and Statistics Education Concentration
- 12 hrs of mathematics education
  - EMS 513 Teaching and Learning Algebra
  - EMS 514 Teaching and Learning Geometry
  - EMS 519 Teaching and Learning Statistics
  - EMS 580 Teaching Mathematics with Technology or EMS 510 Interactions in Mathematics Classrooms or EMS 581 Advanced Application of Technology in Math Ed
- 15 hrs of specialty content courses from an estimated 20 options, such as: MA 501, MA 502, MA 508, MA 511, MA 513, MA 523, MA 580, MA 591.

Engineering and Technology Education Concentration
- 12 hrs of Engineering and Technology Education
  - TED 530
  - TED 558
  - TED 552
  - TED 555
- 15 hrs of specialty content courses from an estimated 300 options, such as: ED 572, ECI 514, ECI 511, EAC 539, EAC 551, EAC 559, EAC 580, EAC 582, EAC 585, ECI 716, ECI 719.

**********************************************************************
Admissions Requirements and Process
(no GRE)
3 references, min 3.0 GPA, personal statement
Applicants will select a subspeciality on application time and then routed to subspeciality review.
Admit for Summer and Fall,
Combined Master's Program for STEM Education
North Carolina State University

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

Endorsed By:

Head, Department/Director of Graduate Program (Printed Name and Signature) Date

Recommended By:

Chair, College Graduate Studies Committee (Printed Name and Signature) Date

Endorsed By:

College Dean (Printed Name and Signature) Date

Recommended By:

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

Approved By:

Dean of the Graduate School (Printed Name and Signature) Date

Recommended By:

Dean's Council (Printed Name and Signature) Date

Approved By:

Executive Vice Chancellor and Provost (Printed Name and Signature) Date

Approved By:

Chancellor (Printed Name and Signature) Date

(revised August 2015)
UNIVERSITY OF NORTH CAROLINA
REQUEST TO DISCONTINUE
A DEGREE PROGRAM, SITE OR DELIVERY MODE

Constituent Institution: NC State University

Is the program a joint degree program? Yes No X

Joint Partner campus

Title of Authorized Program: Technology Education Degree Abbreviation: TEDMED

CIP Code (6-digit): 13.1309 Level: B M X D

CIP Code Title: Technology Teacher Education/Industrial Arts Teacher Education

If the degree program has associated UNC Teacher Licensure Specialty Area Codes that, upon this discontinuation, should be attributed to a different degree program, then complete the following:

<table>
<thead>
<tr>
<th>UNC Teacher Licensure Specialty Area Code (one per line; add as needed)</th>
<th>Degree Program to Receive Specialty Area Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>109 Technology Teacher Education/Industrial Arts Teacher Education</td>
<td>M.Ed. 131309</td>
</tr>
</tbody>
</table>

Term of Proposed Discontinuation (when new students will no longer be admitted):

term Spring year 2019

1. What type of program discontinuation is being requested? (if b/c/d, one or more can be selected)

a) Discontinue - Permanent. (While course offerings already shared across degree programs may continue, the program components will not become a significant or distinct component of another program. Degree program is discontinued in full in Academic Program Inventory (API), including any approved off-campus sites and alternate means of delivery; requires action of Board of Governors)

b) Discontinue - Delivery. Eliminate one or more delivery types and keep the program active.
o On-campus delivery of program
o Online delivery of program
o Site-based delivery of program
  - Instructor present (off-campus delivery)
  - Instructor not present (site-based distance education)

c) X Discontinue - Consolidate. Program components will become a significant or distinct component in another degree program (e.g. concentration/track).
  o Existing degree program (BOG approved)
    - Program title, degree, CIP
  o New degree program (Request to Establish and BOG approval generally required)
    - Proposed program title, degree, CIP STEM Education, 13.1399 (new, re-named degree)

If (b) is selected and sites are to be discontinued, please list them (add lines as needed).

| Site #1          |  
|------------------|---
| (address, city, county, state) | (date of site authorization by GA) |

| Site #2          |  
|------------------|---
| (address, city, county, state) | (date of site authorization by GA) |

| Site #3          |  
|------------------|---
| (address, city, county, state) | (date of site authorization by GA) |

2. Explain why the program, site, or delivery mode is being discontinued.
   a. If the program, site or delivery mode addresses high priority needs, how will those needs be addressed by other programs? **Consolidation of Mathematics Ed, Science Ed and Technology Ed into a Master's of Education in STEM Ed for feasibility and function.**
   
   b. Describe how affected parties (faculty, staff, students) will be informed of the impending closure and, where applicable, of any additional charges/expenses to students. **Web page announcements, email, faculty meeting announcements. Will be a cost benefit to students due to reduced course hours.**
   
   c. Describe steps to be taken to allow students enrolled in the program, site or delivery mode to complete their courses of study. **They may remain in the current degree, or choose to go into the new option. The "teach-out-plan" for current students is that if they have already started in the old plan, as late as Spring 2019, they will be allowed to choose to stay in the plan until graduation, no later than Fall 2024 [maximum 6 year window]. All courses required of the existing degree programs will continue to be offered until Fall 2024 so students will be able to satisfy all requirements for the current degree programs. We anticipate this will involve fewer than 10 students.**
3. Discuss the reassignment of any faculty, staff and EHRA non-faculty, including number of each type of personnel to be reassigned. N/A

4. Discuss the discontinuation of the employment of any faculty, staff and EHRA non-faculty, including number of each type of personnel to be discontinued. N/A

5. Discuss reallocation or reduction of costs resulting from each discontinuation(s), including specific amounts related to each discontinuation. Consolidation of 3 programs and the Distance Ed delivery will reduce overall costs by having a shared course for the 3 concentrations.

6. Name, title, telephone, and e-mail of contact person for this notification of discontinuation: Dr. Margaret R. Blanchard, Director of Graduate Programs, STEM Ed, NC State, 919-515-1771, mrblanch@ncsu.edu

This request to discontinue a degree program, delivery mode, or site has been reviewed and approved by the appropriate institutional committees and authorities.

Signature of Chief Academic Officer: __________________________

Signature of Chief Academic Officer (Joint Campus partner) __________________________
UNIVERSITY OF NORTH CAROLINA
REQUEST TO DISCONTINUE
A DEGREE PROGRAM, SITE OR DELIVERY MODE

Date: 8/26/2018

Constituent Institution: North Carolina State University

Is the program a joint degree program? Yes No X

Joint Partner campus

Title of Authorized Program: Mathematics Education Degree Abbreviation: MEDMED

CIP Code (6-digit): 13.1311 Level: B M X I D

CIP Code Title: Mathematics Teacher Education

If the degree program has associated UNC Teacher Licensure Specialty Area Codes that, upon this discontinuation, should be attributed to a different degree program, then complete the following:

<table>
<thead>
<tr>
<th>UNC Teacher Licensure Specialty Area Code (one per line; add as needed)</th>
<th>Degree Program to Receive Specialty Area Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>0901</td>
<td>Mathematics Education</td>
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<tr>
<td></td>
<td>M Ed.</td>
</tr>
<tr>
<td></td>
<td>131311</td>
</tr>
</tbody>
</table>

Term of Proposed Discontinuation (when new students will no longer be admitted):

term spring year 2019

1. What type of program discontinuation is being requested? (if b/c/d, one or more can be selected)

a) Discontinue - Permanent. (While course offerings already shared across degree programs may continue, the program components will not become a significant or distinct component of another program. Degree program is discontinued in full in Academic Program Inventory (API), including any approved off-campus sites and alternate means of delivery; requires action of Board of Governors)

b) Discontinue - Delivery. Eliminate one or more delivery types and keep the program active.

o On-campus delivery of program
c) **Discontinue - Consolidate.** Program components will become a significant or distinct component in another degree program (e.g. concentration/track).
   - X _Existing degree program (BOG approved)_
     - Program title, degree, CIP
   - New degree program (Request to Establish and BOG approval generally required)
     - Proposed program title, degree, CIP STEM Education 13.1399 (new, re-named degree)

If (b) is selected and sites are to be discontinued, please list them (add lines as needed).

Site #1

(address, city, county, state) (date of site authorization by GA)

Site #2

(address, city, county, state) (date of site authorization by GA)

Site #3

(address, city, county, state) (date of site authorization by GA)

2. Explain why the program, site, or delivery mode is being discontinued.
   
a. If the program, site or delivery mode addresses high priority needs, how will those needs be addressed by other programs? Consolidation of Mathematics Ed, Science Ed and Technology Ed into a Master’s of Education in STEM Ed for feasibility and function. Students will be able to enroll in the M.Ed. in Science Technology Engineering and Mathematics Education and pursue a concentration in Mathematics and Statistics Education

b. Describe how affected parties (faculty, staff, students) will be informed of the impending closure and, where applicable, of any additional charges/expenses to students. Currently enrolled students will be notified via email about the option to continue in the program or switch to the M.Ed. in Science Technology Engineering and Mathematics Education and pursue a concentration in Mathematics and Statistics Education

c. Describe steps to be taken to allow students enrolled in the program, site or delivery mode to complete their courses of study. The "teach-out-plan" for current students is that if they have already started in the old plan, as late as Spring 2018, they will be allowed to choose to stay in the plan until graduation, no later than Fall 2024 (maximum 6 year window). All courses required of the existing degree programs will continue to be offered until Fall 2024 so students will be able to satisfy all requirements for the current degree programs. We anticipate this will involve fewer than 10 students.
All students currently enrolled in the program will be allowed to continue until completion. They will also be given the option to switch programs to the revised degree in Science Technology Engineering and Mathematics Education.

3. Discuss the reassignment of any faculty, staff and EHRA non-faculty, including number of each type of personnel to be reassigned.
   
   No reassignment of faculty. Faculty will continue offering courses in EMS that will now be part of revised degree in Science Technology Engineering and Mathematics Education.

4. Discuss the discontinuation of the employment of any faculty, staff and EHRA non-faculty, including number of each type of personnel to be discontinued.
   
   NONE

5. Discuss reallocation or reduction of costs resulting from each discontinuation(s), including specific amounts related to each discontinuation.
   
   NONE

6. Name, title, telephone, and e-mail of contact person for this notification of discontinuation:
   
   Karen Hollebrands, Professor and Graduate Coordinator, 919-513-0505, kfholleb@ncsu.edu

This request to discontinue a degree program, delivery mode, or site has been reviewed and approved by the appropriate institutional committees and authorities.

Signature of Chief Academic Officer: ____________________________

Signature of Chief Academic Officer (Joint Campus partner): ____________________________
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 professorships which may be time limited:

1. Goodnight-NC GlaxoSmithKline Foundation Distinguished Professorship in Social Sciences, College of Humanities and Social Sciences, $500K endowment
2. Gertrude M. Cox Distinguished Professorship in Statistics, College of Sciences, $1M endowment
3. Wesley O. Doggett Distinguished Professorship, College of Sciences, $500K 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](#)
REQUESTED
ACTION
ITEMS
MEMORANDUM

TO: NC State University Board of Trustees
FROM: Chancellor W. Randolph Woodson
SUBJECT: Recommendations for 2019-2020 Campus Initiated Tuition Increases (CITI) and Student Fees
DATE: October 29, 2018

In accordance with the University of North Carolina Board of Governors' policy and the NC State Tuition and Fee adjustment process, a Tuition Review Advisory Committee (TRAC), co-chaired by Executive Vice Chancellor and Provost Warwick Arden and Student Body President Jess Errico, and a Fee Review Committee (FRC), co-chaired by Vice Chancellor and Dean for Academic and Student Affairs Mike Mullen and Student Senate President Adam Schmidt, were appointed. The Tuition Review Advisory Committee (Attachment A) and the Fee Review Committee (Attachment B) forwarded their recommendations to me.

The TRAC Committee approved the following Campus Initiated Tuition Increase (CITI) recommendations:

2019-20

- Continue guaranteed 8/10 semester fixed tuition rate for undergraduate residents enrolled as of Fall 2016
- ($ 0 CITI = 0%) Undergraduate Residents (New Cohort)
- ($ 776 CITI = 3%) Undergraduate Nonresidents
- ($ 178 CITI = 2%) Graduate Residents
- ($1016 CITI = 4%) Graduate Nonresidents

The TRAC Committee recommends that the additional tuition revenues be used to:

2019-20

- Increase the need-based Financial Aid to raise it closer to the 15% cap: 33.7% [which equals $2 million]
- improve the quality and accessibility of the NC State educational experience: 27.2%
- provide funding for faculty promotional increases 12.6%
- provide funding to the Graduate Student Support Plan: 26.5%

The Fee Review Committee recommended the following fees for NC State students for the 2019-20 academic year:
The committee had no fee requests and the committee voted unanimously to have no fee increases for the 2019-20 academic year.

I want to thank both committees for considerate discussions to be both attentive of student finances as well as adhere to guidelines set forth by the UNC System office. I concur with the recommendations by both the TRAC and the FRC and recommend them to you for review.

Thank you for your consideration of my 2019-2020 CITI and fee recommendations.

Attachments

cc: Warwick Arden, Executive Vice Chancellor and Provost
Mary Peloquinn-Dodd, Interim Vice Chancellor, Finance and Administration
Mike Mullen, Vice Chancellor and Dean
MEMORANDUM

TO: W. Randolph Woodson
   Chancellor

FROM: Warwick A. Arden
      Executive Vice Chancellor and Provost

Jess Errico
President, Student Body

SUBJECT: Report of the 2018-19 Tuition Review Advisory Committee Regarding Campus Initiated Tuition Increase (CITI)

DATE: October 19, 2018

The Tuition Review Advisory Committee (the Committee) submits the following campus initiated tuition increase (CITI) for 2019-20.

The Committee recognizes that final authority for recommending tuition increases to the North Carolina Legislature rests with the UNC System Office and the UNC Board of Governors. Information received from a UNC System Chief Financial Officers conference call was shared with the committee as follows:

- UNC-Board of Governors 0% cap on campus-initiated tuition increase for resident undergraduate students for this year based on the above mentioned conference call.
- The fixed, 8/10 consecutive semesters guaranteed tuition for new and existing undergraduate resident students.

Two committee meetings were scheduled [September 19 and October 2]. These meetings were well attended, and members engaged in thoughtful discussions during each meeting. The committee received directions from the UNC System office between the first and second meeting confirming what was communicated on the System Chief Financial Officers conference call. The Committee proceeded with the CITI review and recommendation process focusing on tuition rates for nonresident undergraduate students and for resident and nonresident graduate students. Members reviewed and discussed relevant information relating to tuition, evaluated available data, and formulated CITI recommendations for the 2019-20 fiscal year.

During the committee's meeting cycle, it was discussed that there is a desire among students to remain conservative with a special request that nonresident undergrad be lower than nonresident graduate students. NC State will remain second lowest for resident undergraduate tuition, fourth lowest for nonresident undergraduate tuition, lowest for resident graduate student tuition and fifth lowest for nonresident graduate tuition. The Committee reviewed several scenarios and agreed to keep a modest approach. However, while the Committee understood the importance of remaining a good value, it also recognized and discussed the importance of continuing to move the university forward and the important role that tuition revenue plays in achieving student success initiatives.
Ultimately, the committee recommended the following: 3% for nonresident undergraduate students, 2% for resident graduate students and 4% for nonresident graduate students. As previously mentioned, 0% for resident undergraduate students was mandated by the UNC System office.

For the first time in a few years, NC State was below the 15% cap on total tuition dollars that may be used for need-based financial aid. The committee therefore recommended $2 million dollars (33.7%) be allocated to need-based financial aid and the remaining to be distributed as appropriate to the Graduate Student Support Plan (GSSP) (26.5%), faculty promotional increases (12.6%) and to improve quality & accessibility (27.2%). The committee also recommended that any unused funds from the GSSP and faculty promotional increases be allocated to quality and accessibility.

At its October 2nd meeting the Committee completed its work by voting and approving the recommended percent tuition increase for three student categories and the percent allocation for four expenditure categories. The Committee includes 11 voting members and 6 non-voting members; 10 out of 11 voting members cast votes.

The Committee approved the following campus initiated tuition increase (CITI) recommendations:

2019-20
- Continue guaranteed 8/10 semester fixed tuition rate for undergraduate residents enrolled as of Fall 2016
  - ($ 0 CITI = 0%) Undergraduate Residents (New Cohort)
  - ($ 776 CITI = 3%) Undergraduate Nonresidents
  - ($178 CITI = 2%) Graduate Residents
  - ($1016 CITI = 4%) Graduate Nonresidents

The Committee recommends that the additional tuition revenues be used to:

2019-20
- Increase the need-based Financial Aid to raise it closer to the 15% cap: recommended allocating $2 million [which equals 33.7%]
- provide funding to the Graduate Student Support Plan: recommended allocating 26.5%
- improve the quality and accessibility of the NC State educational experience: recommended allocating 27.2%
- provide funding for faculty promotional increases: recommended allocating $750,000 [which equals 12.6%]

If you have questions or would like further information, please let us know.

WAA/kmw
## Final Tuition Recommendation for 2019-20

### Student Categories:

<table>
<thead>
<tr>
<th>Category</th>
<th>% FTEs Increase</th>
<th>Projected FTEs</th>
<th>Rate Increase</th>
<th>Revenue Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Residents (Guaranteed – All But New Cohort)</td>
<td>0.00%</td>
<td>4,500</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Undergraduate Residents</td>
<td>0.00%</td>
<td>2,990</td>
<td>$178</td>
<td>$517,980</td>
</tr>
<tr>
<td>Undergraduate Nonresidents</td>
<td>3.00%</td>
<td>3,043</td>
<td>$1,016</td>
<td>$3,091,688</td>
</tr>
<tr>
<td>Graduate Residents</td>
<td>2.00%</td>
<td>3,043</td>
<td>$1,016</td>
<td>$3,091,688</td>
</tr>
<tr>
<td>Graduate Nonresidents</td>
<td>4.00%</td>
<td>3,043</td>
<td>$1,016</td>
<td>$3,091,688</td>
</tr>
<tr>
<td>Total</td>
<td>0.00%</td>
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### Proposed Use:

<table>
<thead>
<tr>
<th>Allocation</th>
<th>% Allocation</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need-based Financial Aid</td>
<td>33.7%</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Graduate Student Support Plan (GSSP)</td>
<td>26.5%</td>
<td>$1,568,500</td>
</tr>
<tr>
<td>Improve Quality &amp; Accessibility</td>
<td>27.2%</td>
<td>$1,911,408</td>
</tr>
<tr>
<td>Faculty Promotional Increases</td>
<td>12.6%</td>
<td>$750,000</td>
</tr>
<tr>
<td>Total</td>
<td>100.0%</td>
<td>$5,929,908</td>
</tr>
</tbody>
</table>

### Graduate Student Support Plan (GSSP)

<table>
<thead>
<tr>
<th>Students</th>
<th>Rate</th>
<th>Increased Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Supported Graduate Students</td>
<td>$178</td>
<td>$311,500</td>
</tr>
<tr>
<td>Non-State Supported Graduate Students</td>
<td>$1,016</td>
<td>$1,257,000</td>
</tr>
<tr>
<td>Differential in Tuition Remission</td>
<td>$838</td>
<td>$1,568,500</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>$1,568,500</td>
</tr>
</tbody>
</table>

### Summary

<table>
<thead>
<tr>
<th>Tuition 2018-19</th>
<th>Increase</th>
<th>2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,535</td>
<td>$0</td>
<td>0.0%</td>
</tr>
<tr>
<td>$25,878</td>
<td>$776</td>
<td>3.0%</td>
</tr>
<tr>
<td>$8,917</td>
<td>$178</td>
<td>2.0%</td>
</tr>
<tr>
<td>$25,405</td>
<td>$1,016</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Differential in graduate resident and non-resident tuition: $16,488 $838 $17,326

- FTEs include On-Campus Regular term and CVM portion of Vet Med students. DE and DVM not included here.
- Undergraduate Residents have a guaranteed rate, except for the 4,500 FTE assumed to be in the new freshmen (and new transfers-in) undergraduate cohort.
- 14,445 of Undergraduate Resident FTEs are assumed to be in the existing cohorts with guaranteed rates.
## NCSU

### Tuition and Fee Proposals for 2019-20

<table>
<thead>
<tr>
<th>Tuition Category</th>
<th>2018-19 Tuition</th>
<th>Proposed Increase</th>
<th>% Change</th>
<th>Revenue Generated</th>
<th>2019-20 Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Resident</td>
<td>$6,535.00</td>
<td>$0.00</td>
<td>0.0%</td>
<td>$0</td>
<td>$6,535.00</td>
</tr>
<tr>
<td>Undergraduate Nonresident</td>
<td>$25,878.00</td>
<td>$776.00</td>
<td>3.0%</td>
<td>$2,373,388</td>
<td>26,654.00</td>
</tr>
<tr>
<td>Graduate Resident</td>
<td>$8,917.00</td>
<td>$178.00</td>
<td>2.0%</td>
<td>$732,371</td>
<td>9,095.00</td>
</tr>
<tr>
<td>Graduate Nonresident</td>
<td>$25,405.00</td>
<td>$1,016.00</td>
<td>4.0%</td>
<td>$3,136,408</td>
<td>26,421.00</td>
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</tbody>
</table>

Estimated Total Revenue Generated: $6,242,167

### Proposed Expenditures:

<table>
<thead>
<tr>
<th>Category</th>
<th>2018-19</th>
<th>Proposed Increase</th>
<th>% Change</th>
<th>Revenue Generated</th>
<th>2019-20 Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflationary Adjustments</td>
<td></td>
<td></td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Faculty and Staff Retention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expanded Institutional Opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Quality and Accessibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Services</td>
<td></td>
<td></td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Academic Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course redesign and instructional redesign to support faculty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Libraries</td>
<td></td>
<td></td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Technology Improvements</td>
<td></td>
<td></td>
<td>0.0</td>
<td>0.0%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total - Proposed Expenditures: $6,242,167

### 2019-20 Fees

<table>
<thead>
<tr>
<th>General Fees and Debt Service</th>
<th>2018-19 Fees</th>
<th>Proposed Increase</th>
<th>% Change</th>
<th>2019-20 Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletics</td>
<td>$232.00</td>
<td>$0.00</td>
<td>0.0%</td>
<td>$232.00</td>
</tr>
<tr>
<td>Health Services</td>
<td>407.00</td>
<td>0.00</td>
<td>0.0%</td>
<td>407.00</td>
</tr>
<tr>
<td>Student Activities</td>
<td>679.32</td>
<td>0.00</td>
<td>0.0%</td>
<td>679.32</td>
</tr>
<tr>
<td>Educational &amp; Technology</td>
<td>439.28</td>
<td>0.00</td>
<td>0.0%</td>
<td>439.28</td>
</tr>
<tr>
<td>Campus Security</td>
<td>30.00</td>
<td>0.00</td>
<td>0.0%</td>
<td>30.00</td>
</tr>
</tbody>
</table>

**Subtotal - General Fees**

| Debt Service *                                  | 572.00       | 0.00             | 0.0%     | 572.00       |
| ASG Fee                                         | 1.00         | 0.00             | 0.0%     | 1.00         |

Total Proposed UG Fees: $2,360.60

Proposed UG Resident Tuition & Fees: $8,895.60

*The debt service line should capture the total debt service fee (all debt projects) and the total proposed increases.*
## TUITION REQUEST FORM

### NCSU

Regular Campus-Initiated Tuition Increases for 2019-20

### Requested Campus-Initiated Tuition Increase

<table>
<thead>
<tr>
<th></th>
<th>Reg. Term Annual Increment</th>
<th>DE Rate (SCH)</th>
<th>Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Residents (not allowed)</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Undergraduate Nonresidents</td>
<td>$776.00</td>
<td>$26.22</td>
<td>$776.00</td>
</tr>
<tr>
<td>Graduate Residents</td>
<td>$178.00</td>
<td>$8.73</td>
<td>$178.00</td>
</tr>
<tr>
<td>Graduate Nonresidents</td>
<td>$1,016.00</td>
<td>$49.80</td>
<td>$1,016.00</td>
</tr>
</tbody>
</table>

### Projected Revenues

<table>
<thead>
<tr>
<th></th>
<th>FTE</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Residents (Fall 2017, 2018, &amp; 2019)</td>
<td>14,445.00</td>
<td>23,233.00</td>
</tr>
<tr>
<td>Undergraduate Residents (Before Fall 2017)</td>
<td>4,500.00</td>
<td></td>
</tr>
<tr>
<td>Undergraduate Nonresidents</td>
<td>2,990.00</td>
<td>2,027.00</td>
</tr>
<tr>
<td>UG Resident per G.S. 116-143.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Residents</td>
<td>2,910.00</td>
<td>24,558.00</td>
</tr>
<tr>
<td>Graduate Nonresidents</td>
<td>3,043.00</td>
<td>898.00</td>
</tr>
</tbody>
</table>

### Projected Expenditures

<table>
<thead>
<tr>
<th></th>
<th>FTE</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflationary Adjustments</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Critical Needs:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Faculty &amp; Staff Retention</td>
<td>750,000</td>
<td>-</td>
</tr>
<tr>
<td>2. Expanded Instit. Opportunities</td>
<td>1,611,408</td>
<td>181,110</td>
</tr>
<tr>
<td>3. Student Services</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. Academic Support</td>
<td>-</td>
<td>131,149</td>
</tr>
<tr>
<td>5. Libraries</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>6. Technology Improvements</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7. Other (provide details below)</td>
<td>3,568,500</td>
<td>-</td>
</tr>
</tbody>
</table>

### Total

<table>
<thead>
<tr>
<th></th>
<th>FTE</th>
<th>SCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5,929,908</td>
<td>312,259</td>
</tr>
</tbody>
</table>

"Other“ Expenditure Explanation:

Need-based Financial Aid $2,000,000; Graduate Student Support Plan (GSSP) $1,568,500
NC State University’s CITI Request Justification

FY 2019-20

NC State’s request for CITI will enable us to continue to provide expanded educational opportunities and innovative enhancements that promote the success of our students. Consistent with our strategic plan, we continue to invest in programs that promote a strong interdisciplinary and entrepreneurial culture to position students to be successful engaged leaders in society when they graduate.

Our regular term CITI request will generate approximately $5.9m, about 33.7% will be allocated to need-based students via financial aid, 26.5% will support the GSSP, a fund that provides stipend, tuition and health benefits to graduate students. About 12.6% is allocated for faculty promotional increases that are awarded when faculty are promoted with tenure through NC State’s Reappointment, Promotion, and Tenure process and assists with our faculty retention efforts. The remaining 27.2% is allocated to improve quality and accessibility by supporting additional seats and sections in our general education courses, adding professional advisers, and supporting expanded institutional opportunities for our students. In addition, the distance education CITI will generate approximately $312k and it will be distributed to expand educational opportunities (58%) and increase academic support (42%). For example, these additional funds allow us to:

1) hire additional faculty in order to expand into new and emerging programs, to reduce class size and to increase the flexibility in the delivery of courses,
   • Through NC State’s targeted interdisciplinary faculty hiring plan, we are bringing together the brightest minds in a range of academic disciplines. We will continue to fund faculty lines in targeted interdisciplinary programs, such as:
     o Bioinformatics
     o Translational Regenerative Medicine
     o Digital Transformation
     o Human Health & the Environment
   • We continue to assess class size and its impact on student learning. Class size will be reduced by expanding course offerings which will enable students to take more courses in the sequence needed which decreases time to degree and reduces the financial burden on students and parents.
   • NC State strives to provide innovative and technology-driven modes of course delivery to students, which provides students more opportunities and schedule flexibility. This flexibility allows students to participate in a variety of other academic opportunities that they may not be afforded otherwise.

2) invest in developing and implementing innovative learning technologies,
   • NC State promotes a technology-rich education by investing in learning technologies. The rate of innovation in learning technologies is rapid. Advances in research on learning and teaching, coupled with advances in information and communications technology, have paved the way for the next generation of technology-rich education. We invest in high-end equipment to support instructional research and student learning experiences.
• We immerse ourselves in emerging technology research. We are continually exploring new learning technology tools and delivery mechanisms to lead educational innovation.

• Our instructional tools enhance learning, streamline course administration, increase engagement, and support student achievement. For example, Moodle is a virtual course environment that offers a suite of teaching and learning tools. With this tool, an engaging learning space can be created for a particular course – blending content, interaction and testing. There are other hardware/software platforms that allow video, audio and/or screen capture of any event to be streamed live and/or archived for future viewing. Lectures can be recorded and students can watch and review at their convenience. In addition, there is another learning technology tool that enables faculty to hold live sessions with their students for office hours and/or problem-solving sessions.

• Financial resources are being dedicated to enhance learning spaces for our students; such as the visualization and data spaces in the DH Hill Library.

3) increase the opportunities for advising and mentoring at both the graduate and undergraduate levels

• NC State continues to assess the need for academic advisors and invests in positions to strengthen advising in high-demand areas. Professional advisors and faculty mentors play a pivotal role in the success of both our undergraduate and graduate students.

4) provide graduate and undergraduate internships and professional development experiences.

• Investments are being made to provide educational opportunities for students to inspire them to lead and prepare them for life after graduation. For example, the Professional Experience Program (PEP) aims to create meaningful campus student employment opportunities with particular emphasis toward expanding undergraduate research opportunities and career development. Students are paid a wage while working with NC State entities to participate in undergraduate research and expand their professional development. Creating meaningful on-campus employment gives students a greater ability to focus on their studies and excel in the classroom. PEP connects university colleges, departments, and students seeking on-campus employment. Students receive hands-on work experience in the disciplines in which they are planning a career.

• Student internship opportunities are numerous. Many of the colleges offer internships specific to the disciplines within their college. For example, the College of Natural Resources requires all undergraduate students in the Department of Parks, Recreation, and Tourism Management to participate in a 10-week student internship. Participation in this internship provides students with relevant hands-on experiences in program development, administrative procedures, supervision, time-management, facility operation and maintenance.

• Internships are offered in a variety of businesses, non-profits, government agencies, or educational institutions in the Triangle and are matched to the students’ career path.
• We’re constantly evaluating professional development opportunities in graduate education. We work with our graduate students to help them think about how the knowledge and skills they develop while students at NC State are transferable out into the real world and excel in a career. For example, we are offering a Dissertation Institute to master’s students and PhD students. We’re also holding writing workshops to encourage our students to write more and in a timely manner. Workshops are offered on communication – both speaking and writing; leadership and management; project management; academic development – teaching and mentorship; and personal and professional development, including skills to help students in their job search.

• Networking events are held for our graduate students, discussion panels, presentations, company site visits, and team projects, to name a few of the opportunities provided to move our students from academics to industry.

NC State has a proven record of improving student success. The additional resources coming from CITI will continue to build on program quality, maintain affordability and help ensure a stable workforce.
MEMORANDUM

TO: W. Randolph Woodson, Chancellor

FROM: Mike Mullen, Vice Chancellor and Dean, Co-Chair
      Adam Schmidt, Student Senate President, Co-Chair

SUBJECT: 2019-2020 Student Fee Review Committee Recommendations

DATE: October 18, 2018

In accordance with your charge to the 2018-2019 Student Fee Review Committee, the Committee met to review all student fees and make recommendations concerning continuation of existing fees and proposed increases for 2019-2020.

The members of the Student Fee Review Committee members were:

Dr. Mike Mullen, Co-Chair, Vice Chancellor and Dean, Academic and Student Affairs
Adam Schmidt, Co-Chair, Student Senate President
James Withrow, Graduate Student Representative
Jess Errico, Student Body President
Noah Johnson, Undergraduate Student Representative
Dr. Jerome Lavelle, Associate Dean, Academic Affairs, College of Engineering
Barbara Moses, Associate Vice Chancellor, Budget and Resource Management
Krista Ringler, Director, Scholarships and Financial Aid
Dr. Paul Williams, Professor, Poole College of Management
Michael Evans, Ex. Officio Non-voting, Student Senate Tuition and Fees Committee Chair

The committee had one meeting on October 3, 2018 as there were no fee requests. Guidance from the UNC System stated no more than 3% maximum increase on fees and the university worked to have no increases. All members of the committee were present, with the exception of Noah Johnson, the Undergraduate Student Representative. Dr. Mullen discussed that the university was not asking for any fee increases for the 2019-20 academic year. Paul Williams
made a motion to maintain fees at current levels for the 2019-20 academic year, and Jerome Lavelle seconded the motion. The committee voted unanimously 8-0 for no fee increases.

Submitted October 18, 2017

Michael D. Mullen, Co-Chair
Vice Chancellor and Dean, DASA

Adam Schmidt, Co-Chair
Student Senate President

cc: Dr. Warwick Arden, Executive Vice Chancellor and Provost
Mary Peloquin-Dodd, Interim Vice Chancellor for Finance and Business
Student Fee Review Committee
Student Fee Area Contacts
### Academic Year 2019-20 Proposed Student Fees

#### Student Fees Summary

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>Inc./(Decr.) FY19-20</th>
<th>Proposed 2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Student Activity Fees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Publications/Media</td>
<td>24.00</td>
<td>27.00</td>
<td>27.25</td>
<td>-</td>
<td>27.25</td>
</tr>
<tr>
<td>Student Government</td>
<td>15.15</td>
<td>15.50</td>
<td>15.50</td>
<td>-</td>
<td>15.50</td>
</tr>
<tr>
<td>Student Legal Services</td>
<td>16.50</td>
<td>16.50</td>
<td>16.50</td>
<td>-</td>
<td>16.50</td>
</tr>
<tr>
<td>School (Student Association)*</td>
<td>5.00</td>
<td>5.00</td>
<td>5.00</td>
<td>-</td>
<td>5.00</td>
</tr>
<tr>
<td><strong>Student Center Operations Total</strong></td>
<td>125.16</td>
<td>127.39</td>
<td>132.39</td>
<td>-</td>
<td>132.39</td>
</tr>
<tr>
<td><strong>Academic and Student Affairs</strong></td>
<td>27.77</td>
<td>30.00</td>
<td>32.00</td>
<td>-</td>
<td>32.00</td>
</tr>
<tr>
<td><strong>Campus Enterprises</strong></td>
<td>97.39</td>
<td>100.39</td>
<td>100.39</td>
<td>-</td>
<td>100.39</td>
</tr>
<tr>
<td><strong>Student Center Repairs and Renovations Total</strong></td>
<td>43.70</td>
<td>45.80</td>
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<td>-</td>
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<tr>
<td><strong>Academic and Student Affairs</strong></td>
<td>8.90</td>
<td>11.00</td>
<td>13.00</td>
<td>-</td>
<td>13.00</td>
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<tr>
<td><strong>Campus Enterprises</strong></td>
<td>34.80</td>
<td>34.80</td>
<td>34.80</td>
<td>-</td>
<td>34.80</td>
</tr>
<tr>
<td><strong>Student Center Programming Total</strong></td>
<td>225.19</td>
<td>234.15</td>
<td>241.40</td>
<td>-</td>
<td>241.40</td>
</tr>
<tr>
<td><strong>Academic and Student Affairs</strong></td>
<td>203.54</td>
<td>212.00</td>
<td>218.00</td>
<td>-</td>
<td>218.00</td>
</tr>
<tr>
<td><strong>Office of Institutional Equity and Diversity</strong></td>
<td>21.65</td>
<td>22.15</td>
<td>23.40</td>
<td>-</td>
<td>23.40</td>
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<tr>
<td><strong>Sustainability</strong></td>
<td>4.50</td>
<td>5.00</td>
<td>5.00</td>
<td>-</td>
<td>5.00</td>
</tr>
<tr>
<td><strong>University Wellness and Recreation</strong></td>
<td>167.35</td>
<td>167.35</td>
<td>168.85</td>
<td>-</td>
<td>168.85</td>
</tr>
<tr>
<td><strong>Total Student Activity Fees</strong></td>
<td>$646.18</td>
<td>$663.32</td>
<td>$679.32</td>
<td>-</td>
<td>$679.32</td>
</tr>
<tr>
<td><strong>Association of Student Governments</strong></td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>-</td>
<td>1.00</td>
</tr>
<tr>
<td><strong>Campus Security Fee</strong></td>
<td>30.00</td>
<td>30.00</td>
<td>30.00</td>
<td>-</td>
<td>30.00</td>
</tr>
<tr>
<td><strong>Intercollegiate Athletics</strong></td>
<td>232.00</td>
<td>232.00</td>
<td>232.00</td>
<td>-</td>
<td>232.00</td>
</tr>
<tr>
<td><strong>Student Health Service</strong></td>
<td>372.00</td>
<td>392.00</td>
<td>407.00</td>
<td>-</td>
<td>407.00</td>
</tr>
<tr>
<td><strong>Educational &amp; Technology Fee</strong></td>
<td>439.28</td>
<td>439.28</td>
<td>439.28</td>
<td>-</td>
<td>439.28</td>
</tr>
<tr>
<td><strong>Transit Operations (Bus Service)</strong></td>
<td>181.00</td>
<td>193.00</td>
<td>205.00</td>
<td>-</td>
<td>205.00</td>
</tr>
<tr>
<td><strong>Indebtedness Fees</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thompson Hall - Indebtedness (expires FY2021)</td>
<td>38.00</td>
<td>38.00</td>
<td>38.00</td>
<td>-</td>
<td>38.00</td>
</tr>
<tr>
<td>Student Health Service - Expansion (expires FY2022)</td>
<td>35.00</td>
<td>35.00</td>
<td>35.00</td>
<td>-</td>
<td>35.00</td>
</tr>
<tr>
<td>Intercollegiate Athletics - Indebtedness (expires FY2027)</td>
<td>96.00</td>
<td>96.00</td>
<td>96.00</td>
<td>-</td>
<td>96.00</td>
</tr>
<tr>
<td>Carmichael Complex - Indebtedness (expires FY2023)</td>
<td>23.00</td>
<td>23.00</td>
<td>23.00</td>
<td>-</td>
<td>23.00</td>
</tr>
<tr>
<td>Student Center - Expansion (expires FY2036)</td>
<td>260.00</td>
<td>260.00</td>
<td>260.00</td>
<td>-</td>
<td>260.00</td>
</tr>
<tr>
<td>Carmichael Complex - Expansion (expires FY2027)</td>
<td>27.50</td>
<td>27.50</td>
<td>27.50</td>
<td>-</td>
<td>27.50</td>
</tr>
<tr>
<td>Carmichael Complex - Addition and Renovation (expires FY2046)</td>
<td>92.50</td>
<td>92.50</td>
<td>92.50</td>
<td>-</td>
<td>92.50</td>
</tr>
<tr>
<td><strong>Total Indebtedness Fees</strong></td>
<td>$572.00</td>
<td>$572.00</td>
<td>$572.00</td>
<td>-</td>
<td>$572.00</td>
</tr>
</tbody>
</table>

- **Fees subject to the 3% Cap**: $2,292.46 ($2,329.60) ($2,360.60) - $2,360.60
- **Increase Requests as % of prior year base**: 0.00%
- **3% of base year fees**: $70.82
- **Requested amount under/(over) cap**: $70.82

### Total Student Fees - Undergraduate

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>Inc./(Decr.) FY19-20</th>
<th>Proposed 2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Student Activity Fees</strong></td>
<td>$2,473.46</td>
<td>$2,522.60</td>
<td>$2,565.60</td>
<td>-</td>
<td>$2,565.60</td>
</tr>
<tr>
<td><strong>Percent Increase</strong></td>
<td>0.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total Student Fees - Graduate* 

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>Inc./(Decr.) FY19-20</th>
<th>Proposed 2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Student Activity Fees</strong></td>
<td>$2,484.46</td>
<td>$2,534.60</td>
<td>$2,577.60</td>
<td>-</td>
<td>$2,577.60</td>
</tr>
<tr>
<td><strong>Percent Increase</strong></td>
<td>0.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

*Indebtedness Fees are subject to the 3% Cap.*
<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>FY19-20</th>
<th>Proposed 2019-20</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engineering Major</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 COE Program Graduate and Undergraduate Enhancement Fee</td>
<td>$1,000.00</td>
<td>$1,500.00</td>
<td>$1,500.00</td>
<td>-</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>Total Undergraduate Fees - Engineering Major</td>
<td>$3,473.46</td>
<td>$4,022.60</td>
<td>$4,065.60</td>
<td>-</td>
<td>$4,065.60</td>
</tr>
<tr>
<td>Total Graduate Fees - Engineering Major</td>
<td>$3,484.46</td>
<td>$4,034.60</td>
<td>$4,077.60</td>
<td>-</td>
<td>$4,077.60</td>
</tr>
<tr>
<td><strong>Professional Golf Management Major</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26 Professional Golf Management Fee</td>
<td>$700.00</td>
<td>$700.00</td>
<td>$700.00</td>
<td>-</td>
<td>$700.00</td>
</tr>
<tr>
<td>Total Undergraduate Fees - PGM Major</td>
<td>$3,173.46</td>
<td>$3,222.60</td>
<td>$3,265.60</td>
<td>-</td>
<td>$3,265.60</td>
</tr>
</tbody>
</table>

| Application Fees for Admission to NC State             |         |         |         |         |                  |
| 27 Undergraduate Student Application Fee - Domestic     | $85.00  | $85.00  | $85.00  | - | $85.00          |
| 28 Undergraduate Student Application Fee - International| $100.00 | $100.00 | $100.00 | - | $100.00         |
| 29 Graduate Student Application Fee - Domestic         | $85.00  | $85.00  | $85.00  | - | $85.00          |
| 30 Graduate Student Application Fee - International     | $95.00  | $95.00  | $95.00  | - | $95.00          |
| 31 Non Degree Studies Application Fee                   | $35.00  | $35.00  | $40.00  | - | $40.00          |

* The Graduate Student Fee represents both the Graduate Student Fee and the School Fee for a total of $17.00
** Debt Service fees are project-based, changes will be evaluated annually

Chancellor

Chair, Board of Trustees
### Mandatory Fee

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>Requested Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Activity Board</td>
<td>$19.63</td>
</tr>
<tr>
<td>Student Publications/Media</td>
<td>$27.25</td>
</tr>
<tr>
<td>Student Government</td>
<td>$15.50</td>
</tr>
<tr>
<td>Student Legal Services</td>
<td>$16.50</td>
</tr>
<tr>
<td>School (Student Association)* Undergraduates</td>
<td>$5.00</td>
</tr>
<tr>
<td>Graduates</td>
<td>$17.00</td>
</tr>
<tr>
<td>Student Center Operations Total</td>
<td>$132.39</td>
</tr>
<tr>
<td>Student Center Programming Total</td>
<td>$241.40</td>
</tr>
<tr>
<td>Student Center Repairs and Renovations Total</td>
<td>$47.80</td>
</tr>
<tr>
<td>Sustainability</td>
<td>$5.00</td>
</tr>
<tr>
<td>University Wellness and Recreation</td>
<td>$168.85</td>
</tr>
<tr>
<td>Association of Student Governments</td>
<td>$1.00</td>
</tr>
<tr>
<td>Campus Security Fee</td>
<td>$30.00</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>$232.00</td>
</tr>
<tr>
<td>Student Health Service</td>
<td>$407.00</td>
</tr>
<tr>
<td>Educational &amp; Technology Fee</td>
<td>$439.28</td>
</tr>
<tr>
<td>Transit Operations (Bus Service)</td>
<td>$205.00</td>
</tr>
<tr>
<td>Indebtedness Fees Thompson Hall - Indebtedness (expires FY2021)</td>
<td>$38.00</td>
</tr>
<tr>
<td>Student Health Service - Expansion (expires FY2022)</td>
<td>$35.00</td>
</tr>
<tr>
<td>Intercollegiate Athletics - Indebtedness (expires FY2027)</td>
<td>$96.00</td>
</tr>
<tr>
<td>Carmichael Complex - Indebtedness (expires FY2023)</td>
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<td>$27.50</td>
</tr>
<tr>
<td>Carmichael Complex - Addition and Renovation (expires FY2046)</td>
<td>$92.50</td>
</tr>
</tbody>
</table>

### Total Required Student Fees

<table>
<thead>
<tr>
<th>Class</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>$2,565.60</td>
</tr>
<tr>
<td>Graduate</td>
<td>$2,577.60</td>
</tr>
</tbody>
</table>

### Major Specific Fees

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE Program Graduate and Undergraduate Enhancement Fee</td>
<td>$1,500.00</td>
</tr>
<tr>
<td>Professional Golf Management Fee</td>
<td>$700.00</td>
</tr>
</tbody>
</table>

### Application Fees

<table>
<thead>
<tr>
<th>Description of Fee</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Student Application Fee - Domestic</td>
<td>$85.00</td>
</tr>
<tr>
<td>Graduate Student Application Fee - Domestic</td>
<td>$85.00</td>
</tr>
<tr>
<td>Undergraduate Student Application Fee - International</td>
<td>$100.00</td>
</tr>
<tr>
<td>Graduate Student Application Fee - International</td>
<td>$95.00</td>
</tr>
<tr>
<td>Non Degree Studies Application Fee</td>
<td>$40.00</td>
</tr>
</tbody>
</table>
Student Involvement in Tuition and Fee Setting Process

Campus Name: North Carolina State University

Date: October 18, 2018

Campus Administrator Name: Dr. Michael Mullen
Campus Administrator Title: Vice Chancellor and Dean, Academic and Student Affairs
Campus Administrator Signature: [Signature]

Student Body President Name: Jess Errico
Student Body President Signature: [Signature]

Collaboration

X Tuition and Fee committee(s) established
X Students were represented on the committee(s)
X Student representatives were appointed by the Chancellor in consultation with the Student Body President
X Committees were co-chaired by the Chief Academic Officer and/or Chief Student Affairs Officer or their designee along with the Student Body President and/or Student Senate President.

Inclusiveness

X Students on the Tuition and Fee committees were representative of student constituencies: (for example, In-State, Out-of-State, Undergraduate, Graduate, Professional School, Distance Education, etc.)
X Student involvement throughout the entire tuition and fee setting process
N/A Student forums were conducted (at least two, one mid-day and one in the evening)

Transparency

N/A Utilization of social media to reach out to students
N/A Utilization of university listserv(s) and website

Timeliness

X Process initiated and completed consistent with the UNC Policy (September 1st through December 1st)

Accountability

X Inclusion of Student Involvement form in the campus Tuition & Fee request packet submitted to UNC-General Administration

Additional Information: NC State made the decision to not increase fees for the 2019-2020 academic year, therefore we did not hold forums. Dr. Mike Mullen did meet with Student Senate on September 19, 2018 to discuss fees and why there were no requests.
MEMORANDUM

TO: NC State University Board of Trustees

FROM: Chancellor W. Randolph Woodson

SUBJECT: Recommendation for Premium Tuition Proposal

DATE: October 29, 2018

In accordance with the University of North Carolina Board of Governors' policy and the NC State Tuition and Fee adjustment process, a Tuition Review Advisory Committee (TRAC), co-chaired by Executive Vice Chancellor and Provost Warwick Arden and Student Body President Jess Errico was appointed.

The TRAC Committee approved the following premium tuition proposal for 2020-21:

2020-21 premium tuition recommendations
- A new tuition premium of $5,600 per year premium for the following proposed degree program:
  - Master in Foundations of Data Science

This premium tuition recommendation is being submitted separately from the tuition and fee recommendation to follow the policies and procedures. Per the policy of the University System Office, premium tuition proposals for proposed programs must be approved by the institution's Board of Trustees and then submitted with the request to establish packet for the new program.

I concur with the recommendations by the TRAC and recommend them to you for review.

Thank you for your consideration of the 2020-21 premium tuition proposal for the proposed Masters in Foundations of Data Science program.

Attachments

cc: Warwick Arden, Executive Vice Chancellor and Provost
    Scott Douglass, Vice Chancellor, Finance and Administration
MEMORANDUM

TO: W. Randolph Woodson
   Chancellor

FROM: Warwick A. Arden
       Executive Vice Chancellor and Provost
       Jess Errico
       President, Student Body

SUBJECT: Report of the 2018-19 Tuition Review Advisory Committee Regarding Premium Tuition Proposal

DATE: October 19, 2018

The Tuition Review Advisory Committee (the Committee) submits the following premium tuition proposal for 2020-21. NC State is in the process of requesting approval for the following academic program. It requires we submit a premium but the request cannot be submitted to the Board of Governors until the request to establish program has been submitted. We plan to submit both items at the same time.

The Committee recognizes that final authority for recommending tuition premium proposals to the North Carolina Legislature rests with UNC System Office and the UNC Board of Governors. There were no specific instructions given regarding tuition premium proposals from the UNC System Office.

Two committee meetings were scheduled [September 19 and October 2]. These meetings were well attended, and members engaged in thoughtful discussions during each meeting. As charged, the Committee considered one premium tuition request.

At its October 2nd meeting members heard a presentation from Dr. George Rouskas, Professor and Director of Graduate Programs in Computer Science presenting a premium tuition proposal for the proposed Masters in Foundations of Data Science program. The Committee completed its work by voting and approving the premium tuition proposal. The Committee includes 11 voting members and 6 non-voting members; 10 out of 11 voting members cast votes.

2019-20 premium tuition recommendation to be effective Fall 2020
- A new tuition premium of $5,600 per year premium for the following proposed degree program:
  o Master in Foundations of Data Science

The Committee recognizes that the additional tuition will make attending NC State more expensive for students than in the past, and yet affirms that an NC State education is still an exceptional value. The Committee wishes to maintain and improve the quality of that education for the benefit of our students, the state and region, which we serve. Tuition Review Advisory Committee members voiced agreement that the recommended tuition premium request is necessary.

If you have questions or would like further information, please let us know.

WAA/kmw
Impact statements regarding the premium tuition proposals include the following:

**Master in Foundations of Data Science**: The Masters of Foundations in Data Science (MSFDS) program is a proposed program being requested to be established and implemented for fall of 2020. Due to UNC System processes, we asked that this program concurrently make the request for any premium tuition they will require for the program. This program is requesting $5,600 per year in premium tuition for 2020-21 and 2021-22. The proposed cost of the program will be $14,695 for resident and $32,021 for nonresident based on proposed regular term tuition rates for 2019-20. This is an interdisciplinary program to be offered by the Departments of Computer Science, Mathematics, and Statistics that will train the next generation of professionals for careers in industry, government, and academia. The requested premium tuition is necessary to enable the three departments to serve a larger student population in the face of a mostly stagnant number of faculty. To make this possible, the proposed degree will be available both as a regular on-campus degree and as an online degree. Specifically, the availability of tuition premium will improve both accessibility and quality of instruction and scholarship by:

1. Providing needed support for the program director (course buyout and summer salary);
2. Hiring graduate program staff members to improve advising and support services;
3. Providing three Teaching Assistantships (one in each of CSC, Math and Stat) to facilitate teaching and advising;
4. Providing need-based financial assistance and recruiting incentives, especially for under-represented groups;
5. Providing buyouts for faculty to ensure the continuous and sustained development of the courses associated to the proposed program.

**Summary of Tuition Premium Requests for Graduate Degree Programs**

<table>
<thead>
<tr>
<th>Title of Graduate Degree Program</th>
<th>Tuition Premium Requested for Year 2020-21</th>
<th>Resident / Non-resident 2020-21 Tuition Per Year (including premium) *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Master of Foundations in Data Science</td>
<td>$5,600</td>
<td>$14,695 / $32,021</td>
</tr>
</tbody>
</table>

* Based on proposed regular term tuition rates for 2019-20
### North Carolina State University

**Master of Science in Foundations of Data Science**

**30.3001**

<table>
<thead>
<tr>
<th>Requested School-Based Tuition Increase</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Residents</td>
<td>$5,600.00</td>
<td>$5,600.00</td>
</tr>
<tr>
<td>Graduate Nonresidents</td>
<td>$5,600.00</td>
<td>$5,600.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FTE</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Residents</td>
<td>5.00</td>
<td>7.00</td>
</tr>
<tr>
<td>Graduate Nonresidents</td>
<td>18.00</td>
<td>23.00</td>
</tr>
<tr>
<td>Total</td>
<td>23.00</td>
<td>30.00</td>
</tr>
</tbody>
</table>

### Projected Revenues

<table>
<thead>
<tr>
<th></th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Residents</td>
<td>$28,000.00</td>
<td>$39,200.00</td>
</tr>
<tr>
<td>Graduate Nonresidents</td>
<td>$100,800.00</td>
<td>$128,800.00</td>
</tr>
<tr>
<td>Total</td>
<td>$128,800.00</td>
<td>$168,000.00</td>
</tr>
</tbody>
</table>

### Projected Expenditures

<table>
<thead>
<tr>
<th>Expenditure Caption</th>
<th>2020-21</th>
<th>2021-22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellowships</td>
<td>$19,320.00</td>
<td>$25,200.00</td>
</tr>
<tr>
<td>Program Support</td>
<td>$109,480.00</td>
<td>$142,800.00</td>
</tr>
<tr>
<td>Expenditure Caption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$128,800.00</td>
<td>$168,000.00</td>
</tr>
</tbody>
</table>

Does your campus intend to charge students in this program the requested graduate CITI plus the SBTI? **Yes**
Campus Request for Authorization of Premium Tuition for the Masters in Foundations of Data Science

Date: October 23, 2018

Institution: N.C. State University

Degree Program CIPs

30.3001

Level: Masters

Degree Types:
see above

Proposed Date of Implementation:
Semester: Fall
Year: 2020

Introduction

The present request for authorization of premium tuition is for the support of our proposed Master of Science in Foundations of Data Science (MSFDS). The MSFDS is an interdisciplinary program to be offered by the Departments of Computer Science, Mathematics, and Statistics that will train the next generation of professionals for careers in industry, government, and academia. The program will provide students with advanced skills in the components, methods and tools of data science and their application to a variety of tasks related to knowledge discovery as well as computational and statistical data analysis. The program will not only provide a solid understanding of the foundational concepts of the field but also emphasize collaboration among the field’s key disciplines, as advocated by the American Statistical Association, namely database management, statistics and machine learning, as well as distributed and parallel systems. The program is intended to contribute to the economic development of North Carolina by providing a pipeline of experienced data scientists trained to develop data solutions across a range of industries. The Request to Plan (Letter of Intent) was approved in August 2018.

The MSFDS is proposed jointly by three N.C. State departments: Computer Science (CSC), Mathematics and Statistics and thus involves two Colleges (Sciences and Engineering). The CSC department is one of the largest departments at N.C. State University by student enrollment and by the number of graduated students. It is also one of the largest computer science departments in the nation\(^1\). CSC is one of the top

\(^1\) https://www.asee.org/papers-and-publications/publications/college-profiles
departments at N.C. State by research funding\(^2\) and among other computer science departments nationwide\(^1\); the department is larger in student numbers, and brings in more research funding, than several of the Colleges at N.C. State. Our university is ranked 3\(^{rd}\) in the nation in R&D expenditures in the mathematical sciences\(^3\), i.e., in Mathematics and Statistics; this is a testimony not only of the quality of both the Department of Mathematics and the Department of Statistics but also of the amount of resources both departments generate and bring to the university. The Department of Mathematics is a recognized pole of excellence in applied mathematics. The Department of Statistics is the largest one in the country and is currently ranked 8\(^{th}\) among all Statistics Departments in the country\(^4\).

All three departments are key in workforce production relevant to high-technology areas of North Carolina, and we are a top supplier of new university-graduated hires to industry leaders such as IBM, Cisco, and SAS. In fact, access to new computer savvy workforce well versed in quantitative sciences is critical for a number of high-technology companies (re)locating to North Carolina. The proposed program will increase the impact of N.C. State in this regard by developing education capabilities for data science in the sciences and engineering disciplines. The need for such capabilities was strongly emphasized in a 2017 report by the National Academies of Sciences, Engineering and Medicine.\(^5\)

Professionals completing the program will:

- Design efficient data modeling and processing methods by using mathematical and algorithmic tools.
- Construct conceptual data models, optimize query languages, and implement principles of information integrity, security and confidentiality.
- Quantify appropriate measures of uncertainty associated with the methods of analysis.
- Perform core predictive/descriptive data-mining tasks and design and implement strategies for real-world data-mining problems.
- Develop appropriate data structures and algorithm design techniques including recursion, divide-and-conquer, distributed and parallel optimization, and dynamic programming for analysis of emerging data types.
- Apply statistical learning principles to a variety of data-analysis problems.
- Use relevant software packages and tools and gain insight into how knowledge discovery and data use occurs in practice.

With its strong credentials in math, statistics, and computer science, NC State is well positioned to lead the nation in developing unique formal training in data science that covers the key concepts above, including domain-specific considerations.

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\(^5\) http://www.nap.edu/24886
We request a premium tuition of $2,800 per semester for each full-time Masters student in the MSFDS degree, an amount that is equal to the premium tuition for Masters students in Computer Science. The premium will be prorated for part-time students, including Distance Track degree students.

A. The anticipated impact of the proposed tuition premium on program quality and capacity

Our top priorities will be (i) to provide our students with an educational experience that is of the highest caliber and nationally competitive and (ii) to equip our graduates with advanced skills in the components, methods and tools of data science and their application to a variety of tasks related to knowledge discovery as well as computational and statistical data analysis.

The proposed degree is organized around 7 core courses (out of a total of 10 courses) that all students in the program have to pass; these include two courses in each of Computer Science, Mathematics and Statistics (and a seventh in machine learning that may be taken either within Computer Science or in Statistics).

The requested premium tuition is necessary to enable our three departments to serve a larger student population in the face of a mostly stagnant number of faculty. To make this possible, the proposed degree will be available both as a regular on-campus degree and as an online degree. Specifically, the availability of tuition premium will improve both accessibility and quality of instruction and scholarship by:

1. Providing needed support for the program director (course buyout and summer salary);
2. Hiring graduate program staff members to improve advising and support services;
3. Providing three Teaching Assistantships (one in each of CSC, Math and Stat) to facilitate teaching and advising;
4. Providing need-based financial assistance and recruiting incentives, especially for under-represented groups;
5. Providing buyouts for faculty to ensure the continuous and sustained development of the courses associated to the proposed program.

Our proposed program will not be able to remain on a path towards higher quality and rankings without an independent source of funding that is not tied to the constituent departments.

B. The projected impact of increased tuition on access for North Carolina residents

We expect the percentage of students in the proposed Masters degree program who will be residents of North Carolina to be between 10 and 20%. Further, based on our experience with current MS programs, we estimate that about half of the students
who complete the Master degree will do so in three semesters and half will do so in four semesters. The proposed premium tuition of $5,600 per academic year will thus increase the cost of a Masters degree education for full-time students by ($5,600 per year x 1.75 years =) $9,800 on average. Predictions on the affordability of the proposed programs are complicated by the fact that we expect our students to come with different undergraduate degrees each with its distinct earning potential. Let us conservatively assume that the expected starting salary of a prospective student is $70,000 if he/she does not join a graduate program versus an expected salary of $100,000 after he/she graduates with the proposed MSFDS. Then, the time it takes that student to fully recover the cost of the premium tuition from his/her $30,000 increase in salary is less than four months on a gross basis (i.e. excluding the impact of payroll taxes), both for NC residents and non-resident students6.

This represents a fast “return on investment” for students. This analysis does not include the additional positive impacts, such as higher placement rates and quality of career paths, made possible by a high quality graduate program.

We will set aside part of the proposed premium tuition increase for financial aid for underrepresented groups, and for U.S. students with documented financial hardships.

C. The availability of student financial aid for students with economic need and of tuition remission

Students in all degree programs are eligible to apply for need-based subsidized and unsubsidized federal loans (Perkins and Stafford), and the federal PLUS program. As already mentioned, part of the proposed tuition increase will be set aside for the recruitment of, and financial aid for, underrepresented groups, and for U.S. students with documented financial hardships; therefore, affordability will actually improve for those populations.

D. The extent to which current and prospective students can afford increases in tuition

The U.S. Bureau of Labor Statistics projections for the period 2016-2026 shows that the number of positions for computer and information research scientists (M.S. degree) will increase by 19.2%. These occupations had median annual wages of $114,520 in 2017. Likewise, the number of positions for mathematicians and statisticians will increase by 29.7% and 33.8% respectively. In 2017, these

6 A North Carolina resident who takes three semesters to complete the degree will incur a loss of income of $105,000 (at the estimated $70K salary over 18 months) and a tuition cost (including the premium) of ($14,517 per year x 1.5 years =) $21,776, as listed in Table 1, for a total cost of $126,776. At an estimated salary increase of $30K after graduation, it would take this graduate just over four years to recoup the lost income, premium tuition, and regular term tuition cost on a gross basis (i.e. excluding the impact of payroll taxes) and excluding University fees.
occupations had median annual wages of $103,010 (Math M.S. degree) and $84,060 (Stat. M.S. degree).

Major employers who have established or are establishing substantial operations in North Carolina do so because of the readily available supply of a highly-skilled workforce in science, engineering, and computing. Recent examples include Fidelity Investments, Credit Suisse, Deutsche Bank, MetLife, LexisNexis, and others. The N.C. State Engineering Career Fair each year attracts several hundred employers.

E. The relationship between projected tuition revenue to institutional and/or program costs

We project that the proposed program will reach a steady state of around 50 students by year 4. By that time and with premium tuition, the program will be fully self-supported.

F. Tuition and fees, net of remissions and waivers, charged by peer institutions or programs as compared to tuition and fees, net of remissions, for the program

Although there exists a growing number of Data Science and/or Analytics programs, both within the UNC system and nationwide, the proposed program fills a void in this area. Existing programs in Data Science and/or Analytics provide training in the usage of Data Science techniques and applications. The proposed program will instead target the rigorous underpinnings of Data Science providing a full mathematical viewpoint into the field. This will enable the graduates from this program to gather a more in-depth understanding of not only the usage, but also the development of the methods, and the field itself. To the best of our knowledge, the MS in Statistics: Data Science program at Stanford University is the only other program whose curriculum aligns with our proposed training. The annual graduate tuition there is over $50,000.

Table 1 in the next page lists the tuition for other premium tuition programs at N.C. State in 2018-2019. Even with the proposed premium tuition, the new MSFDS degree will have total tuition in line with related NC State programs with premium tuition in the College of Engineering, the College of Management or the Provost’s office (Master of Science in Analytics). Note that the above figures for MSFDS do not include the COE enhancement fee. Even if the COE fee were to apply, the total cost would be the same as for Computer Science. We believe that the tuition for the proposed program represents an excellent value considering the expected outcomes.

Table 1. Annual tuition for premium tuition programs at N.C. State in 2018-19
<table>
<thead>
<tr>
<th>Program</th>
<th>Resident</th>
<th>Nonresident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Business Administration (MBA), Global Luxury and Management (GLAM), Supply Chain Engineering &amp; Management (MSCEM)</td>
<td>$23,042</td>
<td>$40,015</td>
</tr>
<tr>
<td>Master of Accounting</td>
<td>$21,979</td>
<td>$38,405</td>
</tr>
<tr>
<td>Master of Science in Analytics</td>
<td>$18,917</td>
<td>$35,405</td>
</tr>
<tr>
<td>Master of Financial Mathematics</td>
<td>$18,917</td>
<td>$35,405</td>
</tr>
<tr>
<td>Doctor of Veterinary Science</td>
<td>$16,861</td>
<td>$44,064</td>
</tr>
<tr>
<td>Computer Science</td>
<td>$14,517</td>
<td>$31,005</td>
</tr>
<tr>
<td>ECE and Computer Networking</td>
<td>$13,717</td>
<td>$30,205</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>$13,217</td>
<td>$29,705</td>
</tr>
<tr>
<td><strong>MSFDS - Proposed</strong></td>
<td><strong>$14,517</strong></td>
<td><strong>$31,005</strong></td>
</tr>
<tr>
<td>Doctorate of Design</td>
<td>$12,917</td>
<td>$29,405</td>
</tr>
<tr>
<td>Master in Chemical Engineering</td>
<td>$11,317</td>
<td>$27,805</td>
</tr>
<tr>
<td>MArch, MAD, MGD, MID, MLA</td>
<td>$10,317</td>
<td>$26,805</td>
</tr>
</tbody>
</table>

**G. A plan for the intended use of additional tuition receipts**

The proposed premium tuition increase will be allocated approximately as follows:

- 15% - Financial aid (need- and merit-based)
- 85% - Program support, including, but not limited to:
  - 60% - faculty and teaching assistants;
  - 12% - graduate program staff;
  - 5% - professional development; employer relations; and career services;
  - 4% - online education initiatives;
  - 4% - software, equipment, and technical support needed, above and beyond ETF funding
These expenditures will improve the quality, scholarship, and experience of our students as described in Section A above.

Responsibility for the use of premium tuition funds as described in this section will rest with the DGP of the program. Only one set of three separate projects will be created for financial management of the premium funds, and these projects will be associated with the program, not the constituent departments.

**H. Assistantships or grant support for graduate students**

For graduate students appointed on the premium tuition account (see Section A), the 25% GSSP tuition remission match (for non-residents), in-state tuition award (ISTA), and health insurance (GSHI) required for students supported from non-state sources will be paid from the premium tuition receipts. Therefore, the premium tuition will allow the new degree program to support graduate students without affecting the GSSP costs to the university.

**I. Analysis of student indebtedness levels within the university**

Not applicable to this proposal (new degree).
UNC System 120 Credit Hour Degree Exception Requests

The UNC Board of Governors recently amended UNC Policy 400.1.5 (January 26, 2018) to stipulate that “Constituent institutions will require no more than 120 semester credit hours for a four-year baccalaureate degree program unless an exception is granted by a board of trustees…(see policy, Appendix A)” In order to meet this mandate, any bachelor’s degree with greater than 120 credits required for graduation has to either be revised to be 120 credits, or an exception must be requested, and approved by the Board of Trustees. This report, and the accompanying documentation documents our work to meet this mandate.

To comply with the 120 credit hour mandate, NC State reviewed its undergraduate degree programs. There are 102 individual degree programs, and 80 of these programs currently exceed 120 hours. Of these 80 degree programs, 60 are revising their curricula in order to bring the credit hours required for graduation to 120 by fall of 2019. We are requesting that the remaining 20 degree programs be granted an exemption from the 120 credit hour mandate.

Below is a summary of the number of degree programs exceeding 120 credits and how they are being addressed.

<table>
<thead>
<tr>
<th>College</th>
<th>Degree Programs Exceeding 120</th>
<th>Revising</th>
<th>Exception Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Agriculture and Life Sciences</td>
<td>12</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>College of Design</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>College of Education</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>College of Engineering*</td>
<td>17</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>College of Natural Resources</td>
<td>7</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Humanities and Social Sciences</td>
<td>19</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>College of Science</td>
<td>9</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>-------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>College of Textiles</td>
<td>5</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td>80</td>
<td>60</td>
<td>20</td>
</tr>
</tbody>
</table>

*Three of these exceptions are engineering degrees in the Colleges of Agriculture and Life Sciences, Natural Resources, and Textiles, all of which are accredited by ABET as meeting the requirements for baccalaureate engineering degree programs.

The basis for the 20 exceptions are briefly outlined below. Details can be found in the appendices.

**Engineering Programs**

The College of Engineering requests exceptions for 17 engineering degrees (see Appendix B). These exceptions to the 120-credit hour mandate are for all 14 BS engineering and computer science degree programs in the College of Engineering, as well as affiliated engineering programs in the College of Agriculture and Life Sciences (Biosystems and Agricultural Engineering), College of Natural Resources (Paper Science and Engineering), and College of Textiles (Textile Engineering). Note that though these programs are in other colleges, they are subject to the same ABET accreditation standards and requirements.

The College of Engineering indicates that there are negative impacts that compliance with UNC Policy 400.1.5 would have on each program. These are as follows and are explained in their document:

- **Competency of graduates**: Reduction of credit hours will compromise professional preparation as detailed by ABET standards.
- **Competitiveness of graduates**: NC State Engineering programs are extremely competitive, but are below the average total credit hour requirements of peer institutions. Further reduction of credit hours will decrease the competitiveness of Engineering graduates.
- **T-Shaped graduates**: Any credit hour reduction will require cutting hours either from technical or critical soft-skill areas that are essential for Engineering graduates to be competitive.
• **Constituents Relations:** Reduction of credit hours will undermine the ability of the programs to meet the needs of the constituents who employ NC State engineering graduates.

• **Student Success:** In 2012 the College of Engineering implemented a strategic plan that improved student retention, matriculation, and graduation rates over historical levels. The College of Engineering is already achieving the stated goals of the new UNC Policy 400.1.5.

We request that these 17 exemptions be approved.

**College of Natural Resources**

The College of Natural Resources requests an exception for the Forest Management Bachelor’s degree in order to maintain their Summer internship course that makes their graduates competitive in the industry and is a common component of all Forestry degree programs nationally. These courses also address part of their accreditation requirements. (See Appendix C).

The Forest Management degree is accredited by the Society of American Foresters (SAF). The SAF prescribes the topics that the curriculum must address, and reviews how the department covers those topics via coursework and related experiences in which students engage every 10 years. The requirements for accreditation include general education as well as technical course work, and the core sciences and math from which the technical coursework grows. The Forest Management degree includes a nine-week, nine-credit summer field course, for which the program has been lauded during every SAF accreditation review for decades. These nine credit hours occur during the summer after the second year in the curriculum. Therefore, the summer field course does not affect the eight-semester array of courses constituting the normal degree path for students. The eight semesters actually only require 119 hours. The total degree requirements are therefore 128 hours. This is also the norm for most forest management programs throughout the nation.

We recommend that this exemption be approved.

**College of Design**

The School of Architecture in the College of Design requests an exception for its Bachelor of Environmental Design in Architecture (Appendix D). The School offers a professional degree, and as such, the program has to meet the accreditation standards
as defined by the National Architectural Accrediting Board (NAAB). Currently, architecture students at NC State must complete a four-year, pre-professional 126-credit hour Bachelor of Environmental Design in Architecture degree (BEDA) and a one-year, 30-credit hour professional Bachelor of Architecture degree (B.Arch.) in order to qualify for professional licensure. This "4+1" model is common among other accredited architecture programs in the U.S. Work experience and successful completion of the Architect Registration Exam (A.R.E.) are additional requirements of licensure.

We recommend that this exemption be approved.

**College of Education**

The College of Education requests an exception for its Middle Grades Education Language Arts and Social Studies degree program (MSL) due to licensure requirements. (See Appendix E). The MSL degree program is a professional teacher education program that leads to dual licensure in middle grades English Language Arts and Social Studies. The program is currently 126 hours, distributed as follows.

1. NC State General Education Program (GEP) requirements - 39 semester hours
2. Education Courses, including required education core courses, major area courses, and required field placements - 39 semester hours
3. Required Teaching Content course - 48 semester hours

The GEP and Education requirements are at the minimum for the program. The Required Teaching Content courses (48 semester hours) cause the program to exceed 120 credits. The North Carolina Department of Public Instruction stipulates that all licensed teachers must have minimum content preparation in each field they are initially licensed to teach. That minimum is equivalent to the core of the bachelor’s degree or minimum of 24 semester hours in the content field. In order to meet this requirement, the MSL program includes 24 semester hours in English language arts content and 24 additional semester hours in social studies content (i.e. history, political science, geography, economics, behavioral sciences) for a total of 48 hours in this area.

We recommend that this exemption be approved.
Appendix A
I. Required Semester Credit Hours for Baccalaureate Degree Programs

Baccalaureate degree programs shall require no more than 120 semester credit hours. An institution with compelling reasons as to why a program’s requirements must exceed 120 semester credit hours may petition to have an exception approved by its board of trustees. Compelling reasons include, but are not limited to: programmatic accreditation standards; licensure requirements; and other state, federal, or professional regulations.

An institution must report any exceptions granted by its board of trustees, and the reasons for those exceptions, to the Board of Governors and the president by the end of calendar year 2018 and annually thereafter.

Any program authorized by the Board of Governors to require 135 semester credit hours or more shall be officially designated as a five-year baccalaureate program.

A. Constituent institutions shall observe these regulations in all proposals for new degree programs.

B. This section applies to individual baccalaureate degree programs, not to credit hour requirements for students who earn more than one major.

C. Constituent institutions must publicize the required number of semester credit hours and projected length of full-time enrollment required to obtain each baccalaureate degree in both printed and online catalogs. During new student orientation sessions and in publications for students and parents, constituent institutions must provide a description of factors that may prolong the length of time to complete a degree.

D. General Administration will maintain a catalog of all active baccalaureate degree programs and their required hours, and the Board of Governors will periodically review compliance with this 120-credit limitation, including approved exceptions to that limitation.

This section is effective as of the beginning of the fall 2019 semester, and shall not affect the credit hour requirements in place at the time of registration for students who registered at a constituent institution prior to the fall 2019 semester. Students who registered at a constituent institution prior to the fall 2019 semester will have the option to elect into the fall 2019 catalog.
Appendix B
June 18, 2018

Dr. Michael Mullen  
Vice Chancellor and Dean  
Division of Academic and Student Affairs  
311 Park Shops Hall  
NC State University  
Raleigh, NC  27695

Dear Dr. Mullen,

On behalf of the deans in which engineering/computer science programs reside at NC State University, and the BS engineering/computer science programs and their faculty, I respectfully submit to you this exception request to UNC Policy 400.1.5(I) for consideration by the NC State University Board of Trustees.

Per instructions for submission, attached to this memo is a table providing internal tracking data on the college, degree code, type, program name, sub-plan title, total hours, and hours-over for each program included in this exception request.

In addition, attached to the Exception Request Form are details upon which the exception request is based.

Please contact me at any time. Thank you.

Sincerely,

Jerome P. Lavelle  
Associate Dean
Application for Exception for an Undergraduate Degree Exceeding 120 Credit Hours

Degree Title and Type (BS/BA): Please see attached

Subplan title (if appropriate): Please see attached

Number of credit hours over 120: Please see attached

Please describe why this program cannot require 120 credit hours, including specific reference to licensure or accreditation requirements either through links or as attachments to this form.

This exception, submitted by the College of Engineering, is sought for all undergraduate engineering and computer science degree programs at NC State University, resident in the College of Engineering (14), College of Agriculture and Life Sciences (11), College of Natural Resources (15), and College of Textiles (18), as one action.

The Associate Dean of Academic Affairs for the College of Engineering is included as a signatory to this document on behalf of each of the individual program department heads.

The Dean of the College of Engineering is included as a signatory on this document on behalf of each of the colleges where affiliated programs reside.

The underlying motivations for this exception request are equivalent for all programs and are addressed in the attached document.
<table>
<thead>
<tr>
<th>College</th>
<th>Degree Code</th>
<th>Type</th>
<th>Program Name</th>
<th>Sub-Plan</th>
<th>Total Hours</th>
<th>Hours Over</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>14AEBS</td>
<td>BS</td>
<td>Aerospace Engineering</td>
<td></td>
<td>127</td>
<td>7</td>
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<tr>
<td>14</td>
<td>14BMEBS</td>
<td>BS</td>
<td>Biomedical Engineering</td>
<td></td>
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<td>7</td>
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<tr>
<td>14</td>
<td>14BMHBS</td>
<td>BS</td>
<td>Biomedical and Health Sciences</td>
<td>Engineering</td>
<td>127</td>
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<tr>
<td>14</td>
<td>14CEBS</td>
<td>BS</td>
<td>Civil Engineering</td>
<td></td>
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<td>14</td>
<td>14CHEBS</td>
<td>BS</td>
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<td>Biomanufacturing Sciences</td>
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<td>14CHEBS</td>
<td>BS</td>
<td>Chemical Engineering</td>
<td>Green Chemistry and Engineering</td>
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<td>5</td>
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<tr>
<td>14</td>
<td>14CHEBS</td>
<td>BS</td>
<td>Chemical Engineering</td>
<td>Nanoscience</td>
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<tr>
<td>14</td>
<td>14CHEBS</td>
<td>BS</td>
<td>Chemical Engineering</td>
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<td>14CONBS</td>
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<td>14</td>
<td>14CPEBS</td>
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<td>14</td>
<td>14CSCBS</td>
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<td>14</td>
<td>14CSCBS</td>
<td>BS</td>
<td>Computer Science</td>
<td>Game Development</td>
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<td>14EEBS</td>
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<tr>
<td>14</td>
<td>14EEBS</td>
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<td>Electrical Engineering</td>
<td></td>
<td>122</td>
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<tr>
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<td>14EGRBS</td>
<td>BS</td>
<td>Engineering</td>
<td>Mechanical Engineering Systems</td>
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<td>14EGRBS</td>
<td>BS</td>
<td>Engineering</td>
<td>Mechatronics (Joint with UNCA)</td>
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<tr>
<td>14</td>
<td>14ENEBS</td>
<td>BS</td>
<td>Environmental Engineering</td>
<td></td>
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<tr>
<td>14</td>
<td>14IEBS</td>
<td>BS</td>
<td>Industrial Engineering</td>
<td></td>
<td>124</td>
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<td>14</td>
<td>14MEBS</td>
<td>BS</td>
<td>Mechanical Engineering</td>
<td></td>
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<td>6</td>
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<tr>
<td>14</td>
<td>14MSEBS</td>
<td>BS</td>
<td>Materials Science and Engineering</td>
<td>Biomaterials</td>
<td>126</td>
<td>6</td>
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<td>14</td>
<td>14MSEBS</td>
<td>BS</td>
<td>Materials Science and Engineering</td>
<td>Nanomaterials</td>
<td>126</td>
<td>6</td>
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<tr>
<td>14</td>
<td>14MSEBS</td>
<td>BS</td>
<td>Materials Science and Engineering</td>
<td></td>
<td>126</td>
<td>6</td>
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<tr>
<td>14</td>
<td>14NEBS</td>
<td>BS</td>
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<td></td>
<td>123</td>
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<td>11BEBS</td>
<td>BS</td>
<td>Biological Engineering</td>
<td>Bioprocessing Engineering</td>
<td>124</td>
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<tr>
<td>11</td>
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<tr>
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<td>11BEBS</td>
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<tr>
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<td>11BEBS</td>
<td>BS</td>
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<td>Agricultural Engineering</td>
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<td>Ecological Engineering</td>
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<tr>
<td>15</td>
<td>15PSEBS</td>
<td>BS</td>
<td>Paper Science and Engineering</td>
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<tr>
<td>18</td>
<td>18TEBS</td>
<td>BS</td>
<td>Textile Engineering</td>
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<td>125</td>
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<td>18</td>
<td>18TEBS</td>
<td>BS</td>
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<td>Chemical Processing</td>
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<tr>
<td>18</td>
<td>18TEBS</td>
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<td>Textile Engineering</td>
<td>Machine Design</td>
<td>126</td>
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<tr>
<td>18</td>
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<td>BS</td>
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<td>Product Engineering</td>
<td>126</td>
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<tr>
<td>18</td>
<td>18TEBS</td>
<td>BS</td>
<td>Textile Engineering</td>
<td>Information Systems</td>
<td>127</td>
<td>7</td>
</tr>
</tbody>
</table>
North Carolina State University

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

Endorsed By: 

Associate Dean, Academic Affairs on behalf of Department Heads  

Date  

Endorsed By: 

College Dean  

Date  

Approved By: 

Vice Chancellor and Dean - DASA  

Date  

Approved By: 

Executive Vice Chancellor and Provost  

Date  

Approved By: 

Board of Trustees  

Date
COLLEGE OF ENGINEERING
Policy Exception Request, to NC State University Board of Trustees
Pursuant to UNC Policy Manual 400.1.5, Section I
RE: 120-semester credit hour requirement

(A) Background:
In response to legislation enacted by the North Carolina General Assembly in 1992, the UNC Board of Governors in 1993 enacted policy requiring all undergraduate degree programs offered by constituent universities in the system to contain no more than 128 semester credit hours effective Fall 1995. At that point in time, engineering curricula at NC State, and peer institutions across the nation, averaged in the approximate range of 132-138. Compliance with the policy required NC State programs to reduce both engineering content and important support knowledge. Since that time, and at present, all of the bachelors programs in the College are at or below the maximum 128 semester credit hours allowed by Policy (see Table 1). From Table 1 the credit hour range of base-curriculum programs currently is 121-128 hours.

Table 1: Required semester credit hours, BS base programs, College of Engineering

<table>
<thead>
<tr>
<th>Degree Program</th>
<th>Hours</th>
<th>Degree Program</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>128</td>
<td>Computer Science</td>
<td>121</td>
</tr>
<tr>
<td>Biological Engineering</td>
<td>128</td>
<td>Construction Engineering</td>
<td>128</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>127</td>
<td>Electrical Engineering</td>
<td>122</td>
</tr>
<tr>
<td>Biomedical Joint w/ UNC-CH</td>
<td>125</td>
<td>Environmental Engineering</td>
<td>127</td>
</tr>
<tr>
<td>BSE-Mechanical Systems (Havelock)</td>
<td>125</td>
<td>Industrial and Systems Engineering</td>
<td>124</td>
</tr>
<tr>
<td>BSE-Mechatronics Joint w/ UNC-A</td>
<td>128</td>
<td>Material Science and Engineering</td>
<td>126</td>
</tr>
<tr>
<td>BSE general (non-accredited)</td>
<td>122</td>
<td>Mechanical Engineering</td>
<td>126</td>
</tr>
<tr>
<td>Chemical Engineering</td>
<td>125</td>
<td>Nuclear Engineering</td>
<td>121</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>125</td>
<td>Paper Science and Engineering</td>
<td>128</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>122</td>
<td>Textile Engineering</td>
<td>127</td>
</tr>
</tbody>
</table>

(B) Policy Exception Request:
The College of Engineering at NC State University requests an exception to the 120-credit hour maximum requirement under UNC Policy 400.1.5 (I) for all BS engineering and computer science degree programs in the College of Engineering, as well as affiliated engineering programs in the College of Agriculture and Life Sciences, College of Natural Resources, and College of Textiles. It is asserted in this exception request that there are common negative effects that compliance with UNC Policy 400.1.5(I) would have on each program. Below please find details of each of these anticipated effects.

(1) Critical Domain: Competency of Graduates
Assertion: Policy adoption will compromise professional preparation

Within the disciplines of engineering, the bachelor’s degree is the minimum required terminal degree for the licensed professional. Upon completion of an ABET accredited BS degree, students are permitted to sit for the Fundamentals of Engineering (FE) exam, the first step in the licensure process. As a result, the BS curriculum becomes the primary mechanism by which students are exposed to the broad content-
knowledge tested on the FE. It follows then that reducing the engineering content from the BS curricula will naturally reduce students’ preparedness for the exam.

At present, the engineering/computer science curricula at NC State University do a fantastic job of preparing students for the FE exam. Each year students from the following departments routinely take the discipline-specific or general FE exams: Mechanical and Aerospace; Biomedical; Biological; Chemical; Civil Construction and Environmental; Electrical and Computer; Industrial and Systems, Materials Science and Engineering, Nuclear, and Textiles. Table 2 below provides the NC State University and national pass rates on the FE exam over the last 5-year period. Please notice that NC State’s pass rate has been 9-17 percentage points above the national average in these years! This is a historical trend.

Table 2: Fundamentals of Engineering Pass Rates, all student takers*

<table>
<thead>
<tr>
<th>Year</th>
<th>NC State</th>
<th>National</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>88</td>
<td>79</td>
<td>+9%</td>
</tr>
<tr>
<td>2014</td>
<td>93</td>
<td>79</td>
<td>+14%</td>
</tr>
<tr>
<td>2015</td>
<td>91</td>
<td>75</td>
<td>+16%</td>
</tr>
<tr>
<td>2016</td>
<td>91</td>
<td>74</td>
<td>+17%</td>
</tr>
<tr>
<td>2017</td>
<td>89</td>
<td>73</td>
<td>+16%</td>
</tr>
</tbody>
</table>

* School and national FE pass rates are highly confidential, and shared here only in the context of this academic communication. These are not to be published or in any way referenced outside this context by any party.

In summary, approval of this exception request will serve to protect the necessary broad and critical engineering content currently present in the curricula, and avoid an eroding of students’ preparedness for this important professional licensure examination. This exception would protect NC State’s positive standing on this exam relative to national test-takers.

Note: On the subject of professional licensure, consider the case of other licensed professions such as physicians, dentists, or lawyers and the processes in place in those curricula to train and prepare students for licensure. Curricular constraints by an external body that affect the depth and breadth of the student training would not be acceptable, and is not appropriate in the case of the engineering profession. On the contrary, professionals within those fields develop the appropriate level of depth and breadth requirements for students in those disciplines. This same dynamic holds for the education and training of the engineering and computer science professions, where depth and breadth requirements are expressed in the FE exam topical areas. These FE exam areas serve as the template for coverage for engineering curricula in the college.

(2) Critical Domain: Competiveness of Graduates
Assertion: Policy adoption will compromise competitiveness

Technology has increased in nearly every aspect of modern living, resulting in higher demand for graduates with skills such as those developed in engineering and computer science programs. Today in the US, over 70,000 students graduate with BS degrees in these disciplines. Although opportunities are abundant, so too is competition.
Twice a year the College of Engineering hosts an *Engineering Career Fair* event, which draws nearly 200 companies and ~4,000 job seekers per day. As a public land-grant school, the College has chosen not to restrict this event to NC State students only. As such, it is common to have students from Duke, UNC-Charlotte, ECU, Clemson, and UNC-Chapel Hill attend—as well as students from institutions in other states, such as Florida, Texas, and New York. Our students understand competition, and the fact that engineering/computer science employers come to NC State University (and that we are a designated as a preferred recruiting site by many of our partners) attests to the fact that our students are currently competing quite well.

However, as geological engineers know, shifting sand can change a landscape. Table 3 below shows the current total credit hours required for engineering/computer science programs at NC State University and several peer engineering schools and programs.

**Table 3: Semester credit hour Requirements of Peer Engineering Programs**

<table>
<thead>
<tr>
<th>School</th>
<th>AE</th>
<th>BME</th>
<th>ChE</th>
<th>CE</th>
<th>CS</th>
<th>CPE</th>
<th>EE</th>
<th>ISE</th>
<th>ME</th>
<th>MSE</th>
<th>NE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia Tech</td>
<td>132</td>
<td>131</td>
<td>132</td>
<td>128</td>
<td>126</td>
<td>132</td>
<td>132</td>
<td>128</td>
<td>129</td>
<td>132</td>
<td>129</td>
</tr>
<tr>
<td>Virginia Tech</td>
<td>130</td>
<td>—</td>
<td>135</td>
<td>133</td>
<td>123</td>
<td>131</td>
<td>132</td>
<td>133</td>
<td>131</td>
<td>128</td>
<td>—</td>
</tr>
<tr>
<td>Penn State</td>
<td>131</td>
<td>131</td>
<td>133</td>
<td>127</td>
<td>129</td>
<td>128</td>
<td>130</td>
<td>129</td>
<td>131</td>
<td>128</td>
<td>129</td>
</tr>
<tr>
<td>Texas A&amp;M</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
</tr>
<tr>
<td>U Illinois</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>128</td>
<td>129</td>
<td>128</td>
<td>128</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Peer Average</th>
<th>129.3</th>
<th>129.5</th>
<th>131.2</th>
<th>128.8</th>
<th>126.4</th>
<th>129.4</th>
<th>130</th>
<th>128.2</th>
<th>129.4</th>
<th>128.6</th>
<th>128.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC State</td>
<td>128</td>
<td>127</td>
<td>125</td>
<td>125</td>
<td>121</td>
<td>122</td>
<td>122</td>
<td>124</td>
<td>126</td>
<td>121</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 illustrates that NC State’s engineering/computer science curricula are at present 1 to 3 courses below those of our average peer requirement—and in some individual cases 10-12 hours below. Adherence to UNC 400.1.5(I) would further widening this gap by requiring programs to drop 1-8 hours of critical content and jeopardize the competitiveness of graduates compared to peer programs. At 120 hours NC State’s engineering/computer science programs simply would not stack up against peers, thus incentivizing employers and graduate schools to prioritize students from peer schools.

**In summary, in 1995 UNC-GA passed an academic policy that set the credit hour requirement of all BS/BA programs at state universities to a maximum of 128 hours. That policy required NC State’s engineering/CS programs to reduce from what was then a 132-138 credit hour level. However, peer institutions have maintained those higher credit hour requirements, and at present NC State’s programs are 1-8 hours below peers on average. Adherence to the new UNC Policy would further widen that gap and emphasize the difference of our graduates to employers and graduate schools. At 120 hours, some of our programs would require a full semester less academic content compared to their peer programs—this is not a message that we want to send to faithful industry partners who hire our graduates and graduate programs who admit them.**

**Note:** Related to competitiveness, consider the case of the demand for seats in the College of Engineering. For the incoming class in Fall 2018 we received nearly 10,000 applications for what will be a class of ~1,400 new students. This is an all-time high number of applicants for our programs. In addition, transfer applications from students who started at other institutions were also at an all-time high this past year. As such, it is clear that students see the value in our programs, and the stepping-stone that a degree in engineering/computer science represents for achieving their personal and professional goals and
aspirations. Students who come to NC State Engineering do so because we are seen as competitors with our peers, not something less.

(3) Critical Domain: T-Shaped Graduates
Assertion: Policy adoption will compromise critical skills

Currently the College’s undergraduate engineering/computer science, and affiliated programs, range from 121 to 128 semester credit hours. Reducing programs to 120 hours will require the cutting of 1 to 3 courses from each program. These hours will come from either technical and/or critical supporting soft-skill areas. In the 21st century, knowledge is expanding exponentially and the problems that engineers/computer scientists solve are complex and multi-disciplined. Now is exactly the wrong time to be cutting important content in either of these categories.

Lowering credit hours reduces the quality of students’ education and skills. By necessity, less coursework is less emphasis, less exposure, and less skill development—and thus less overall preparation to participate as quality Thinkers and Doers in the companies that hire them. The National Academy of Engineering’s (NAE) 2005 report Educating the Engineer of 2020 speaks of the need to educate “T-shaped” engineers with deep technical skills complemented with anchoring and context skills in communications, ethics, teaming, leadership, systems thinking, global competence and the like. Adherence to the new UNC Policy erodes the skills of engineer/computer scientist graduates at exactly the wrong time.

In summary, in today’s technological society engineers and computer scientists have important skills that contribute to solving mankind’s grand challenges—such as sustainability, health and wellness, energy, transportation and systems, materials, security, computing, data, and analytics. These skills are nurtured and developed in curricula built to meet specific needs, and include skills in both technical and complementary subject areas. Adherence to the new UNC Policy would reduce graduates’ skill development in these areas, thus reducing their ability to contribute to robust and lasting solutions.

(4) Critical Domain: Constituent Relations
Assertion: Policy adoption will compromise constituent relations

The ABET accreditation process requires programs to identify unique constituency groups, and to work with those groups in an explicit manner to ensure that curricula meet the needs of each group. Using this process insures that measured student outcomes (those skills students leave the program with) match the needs of the constituents (companies that hire students, etc.). At NC State, the College first implemented ABET’s EC2000 Criterion (which requires this connection to constituencies) in 2004. Since that time, our programs have been reaccredited in 2010 and recently in 2016, and as such have continued to demonstrate proficiency with constituent groups. An important element in the constituent-group relationship is the linking of student outcomes to the curricula, and thus each of the ABET accredited programs in the college have worked to design unique curricula with their groups. In this way, a program’s curriculum reflect the best design to promote the outcomes and needs of the constituencies. In fact, this explains the variance that exists today in the degree requirements of programs in the College (121-128 credit hour range).
Externally and artificially reducing program hours from their existing levels to 120 hours (as required under the new UNC Policy) disrupts this relationship with constituent groups, and inserts an unnecessary constraint. The very fact that programs have worked with constituent groups and arrived at curricula that are all different is evidence of the health of those relationships.

In summary, accreditation processes require programs' to work closely with their constituency groups. Over the past 15 years NC State's programs have a demonstrated record of excellence in ensuring the constituent voice in curricula development and achieving student outcomes. The observed variance in program requirements reflects the needs of each program working with their constituents. Adherence with UNC Policy will undermine the health of the relationship programs have with their constituent groups. Healthy relationships are pivotal for meeting continuing accreditation requirements.

(5) Critical Domain: Student Success
Assertion: College is already achieving student success

The stated purpose of the recent change to UNC Policy 400.1.5 (I) is to improve student retention and graduation rates, and reduce the time required for students to graduate. In the fall semester of 2012 the College implemented the College of Engineering Undergraduate Student Success strategic plan, whose goal was to improve student performance metrics, the quality of students’ experiences, and their overall preparation for contributing to the solution of society’s grand challenges. Table 4 below provides details of the strategic plan which is based on four primary theme areas: messaging, structural, support, and community.

<table>
<thead>
<tr>
<th>Strategic Theme</th>
<th>Phase/Interaction</th>
<th>Activities/Programs</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Messaging</td>
<td>Pre-College</td>
<td>• K-12 outreach activities</td>
<td>• Change messaging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Engr. summer camps</td>
<td>• Change culture</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Teacher training</td>
<td>• Educate and enable</td>
</tr>
<tr>
<td></td>
<td>Application Process</td>
<td>• University application for admissions</td>
<td>• Promote competency</td>
</tr>
<tr>
<td></td>
<td>First Year Engineering</td>
<td>• E101/E102 courses</td>
<td>• Promote broad thinking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Break unhealthy affinity</td>
</tr>
<tr>
<td>Structural</td>
<td>Matriculation into Degree Program</td>
<td>• Process for meeting minimum standard</td>
<td>• Educate on nature of engineering informed by Grand Challenge framework</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Standing in matriculation process</td>
<td></td>
</tr>
<tr>
<td>Support</td>
<td>Course options</td>
<td>• E102/E102 and E201</td>
<td>• Focus on success variables</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• E122</td>
<td>• Raise standards/expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• E144/E145</td>
<td>• Establish std. processes</td>
</tr>
<tr>
<td></td>
<td>Active advising</td>
<td>• Proactive intervention</td>
<td>• Improve communications</td>
</tr>
<tr>
<td></td>
<td>Residence life</td>
<td>• Engineering Village</td>
<td>• Maintain connections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• WISE Village</td>
<td>•意onal reflection</td>
</tr>
<tr>
<td>Community</td>
<td>Various programs and events throughout</td>
<td>• Orientations, E101/E102</td>
<td>• Early identification</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• COE Welcome, FEDD</td>
<td>• Course correction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Career Fair, Grad. Event</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Student Groups</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Connection to college</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Connection to other students, faculty and staff</td>
</tr>
</tbody>
</table>
The strategic plan is already producing successes. As an example, Tables 5 below provides data of graduation rates for first-time students admitted in the College for the 2009 through 2013 cohorts.

Table 5: Engineering/CS Student Graduation Rates by Year

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Start in Engr/CS, graduate in Engr/CS</th>
<th>Start in Engr/CS, graduate elsewhere at NC State</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-yr rate</td>
<td>6-yr rate</td>
</tr>
<tr>
<td>2009</td>
<td>22.9%</td>
<td>54.7%</td>
</tr>
<tr>
<td>2010</td>
<td>23.9%</td>
<td>56.3%</td>
</tr>
<tr>
<td>2011</td>
<td>27.4%</td>
<td>59.5%</td>
</tr>
<tr>
<td>2012</td>
<td>34.7%</td>
<td>65.4%</td>
</tr>
<tr>
<td>2013</td>
<td>36.1%</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>36.9%</td>
<td></td>
</tr>
</tbody>
</table>

From Table 5, students that started in engineering in the Fall 2012 semester, the four-year graduation rate in engineering has increased by 7.3% (from 27.4% to 34.7%, as in Table) and the graduation rate in any major at the University increased by 6.8% (from 35.4% to 42.2%, not in Table) over previous years. The Fall 2013 cohort had even more impressive gains of 8.7% and 9.1% for these 4-year graduation rate metrics, and for the Fall 2014 cohorts the rates were 9.5% and 10.3% over the base-year 2011 cohort. From the strategic plan, the stated 6-year graduation rate goal is 65% in engineering and 80% in any major at the University. For the 10 years prior to 2012, these rates had been at 21.6% (four-year) and 53.8% (six-year). Looking at the 6-year graduation in Table 5 the 6-year graduation rates have increased to 65.4% (engineering) and 80.8% (University)—in other words the strategic goals have been met in the first cohort class! In addition, based on achievements of successive cohorts these numbers are trending to be well above the stated goals.

In conclusion, independently in 2012, the College of Engineering implemented a strategic plan that improved student retention, matriculation and graduation rates over historical levels. The policies and processes have produced the anticipated impact. As a result, the College is achieving the stated goals of the new UNC Policy 400.1.5(I), thus obviating the need for the policy for students in engineering/computer science at NC State University.

(C) Summary:
The engineering/computer science programs at NC State University have a long and successful legacy at the institution. In fact, the University was founded, in part, for the purpose of advancing access to programs in the mechanic arts. As such, our mechanical engineering program has existing for all 130 year of the existence of this school. As the flagship engineering college in the UNC System we take seriously our mission, history, and purpose in engineering and computer science education.

Provided in this request have been details of the bases upon which we seek an exception to the new UNC Policy 400.1.5 (I) capping semester credit hours at 120 for all BS/BA programs. This exception request is based on the negative impact the Policy will have on the professional competency promoted in our curricula, the competitiveness of our graduates compared to their peers, and the depth and breadth on critical skills necessary in our graduates to solve modern problems. In addition, the Policy creates a negative impact on accreditation processes by interjecting unnecessary constraints on the program-constituents relationship. Lastly, the College has demonstrated through its student success strategic
processes to have improved, and are continuing to improve, key student metrics—the stated purpose of the Policy.

In conclusion, we respectfully submit this exception to the Board of Trustees of NC State University for thoughtful consideration. Please note that attached to this exception are several letters of support from key stakeholder groups connected with the College. These letters should provide an important external voice when considering this exception. They include the following boards/groups:

*Professional Engineers of North Carolina (PENC)*
*North Carolina Society of Engineers (NCSE)*
*North Carolina State Engineering Foundation Board*
*Industrial Advisory Board, Department of Civil, Construction and Environmental Engineering*
*Industrial Advisory Board, Department of Chemical Engineering*
*Industrial Advisory Board, Department of Material Science and Engineering*
DATE: April 25, 2018

TO: Dr. Jerome P. Lavelle
Associate Dean, Academic Affairs
21 Current Drive
120 Page Hall, College of Engineering
NC State University
Raleigh, NC 27695

RE: Letter of Support for Engineering Credit Hour Waiver

The Professional Engineers of North Carolina (PENC) would like to express our support for the NCSU waiver petition in relation to UNC Policy 400.1.5 (l) regarding the credit hours for BA/BS degrees at universities within the UNC System.

PENC believes that the proposed reduction in hours compromises preparation for the Fundamentals of Engineering (FE) exam and consequently, licensure as a professional engineer. This may lead to a reduction of licensed professional engineers in North Carolina, which may have an impact on the health, safety, and well-being of our communities.

Licensed engineers are held to high standards of technical and professional competency for the protection of public health, safety, and welfare. These high standards have led the National Council of Examiners for Engineering and Surveying (NCEES) to generate Position Statement 35*, recommending additional education for licensure as a professional engineer. The proposed UNC Policy 400.1.5 (l) is reducing credit hours at a time when NCEES has identified the need to increase hours for professional licensure due to need for increased technical and professional skills.

The professional engineering licensure is the industry's highest standard of competence. In order to continue to protect and promote professional engineering licensure in North Carolina, PENC strongly supports NCSU's petition for a 128-credit hour engineering program to maximize graduates' preparation for the path to licensure.

Sincerely,

Paul R. Shivers, PE
PENC President
2017-2018
pshivers@biepc.com

*Link to NCEES Position Statement 35: https://ncees.org/about/publications/ncees-position-statement-35/
May 17, 2018

Jerome P. Lavelle, Associate Dean
NC State University, College of Engineering
Campus Box 7904
21 Current Drive, Page Hall
Raleigh, NC 27695-7904

RE: Letter of Support/Endorsement for Waiver Petition

Dear Dr. Lavelle,

On behalf of the North Carolina Society of Engineers, the oldest engineering society in North Carolina, we would like to offer strong support to you and encourage the Board of Trustees of the University system to not compromise the engineering degree programs you represent at North Carolina State University. We do understand many programs across the broad university system can adequately meet the expectations for graduation with only a 120 hour course requirement. However, the 20 engineering and computer science programs at N. C. State cannot meet this expectation. We strongly agree with Dr. Lavelle’s concerns that this reduced degree requirement would compromise the professional preparation for these degrees, reduce skill levels of the graduates, reduce our competitiveness against other university programs, compromise our accreditations, and reduce the overall performance of our graduates.

We understand a waiver of this regulation is an option. We strongly support the waiver process at all levels to allow N.C. State to retain the high standards for graduation for these programs that we currently maintain. We as a long standing and key engineering organization in our state stand ready to support and assist you at any level to ensure you are successful in allowing our current criteria to be maintained. Thank you for your leadership and efforts as you represent our great profession.

Sincerely,

H. E. “Tony” Withers, III, P.E.
Executive Director
North Carolina Society of Engineers

Wesley Cook, P.E.
President
North Carolina Society of Engineers
To: Dr. Jerome Lavelle  
Associate Dean of Academic Affairs  
College of Engineering  
NC State University  
Campus Box 7904  
Raleigh, NC 27695

From: Mrs. Suzanne Gordon, President NC State Engineering Foundation Board of Directors

Re: Maximum Credit Hours for Engineering Degrees

On April 20, 2018 at the NC State Engineering Foundation Board meeting I was given unanimous support of the board to write a letter enthusiastically endorsing your efforts to acquire a waiver on the reduction in hours needed to receive a degree from the College of Engineering.

As Engineering alumni, we are very proud of our own degrees from NC State and the quality and rigor of the program that was expected of us and has continued to produce quality graduates for many years. We wish to keep that quality and rigor as an expectation for future generations of NC State engineers. Several concerns were presented that bolster the argument for a waiver petition for the College of Engineering:

- The policy compromises professional preparation: NC State’s engineering/computer science curricula cover the breadth of engineering topics in preparation for graduates to successfully complete the Fundamentals of Engineering examination—the first step toward professional engineering licensure. This policy will result in a cutting of engineering content in the curricula and thus reduce student preparation for this important career step.

- The policy reduces quality of skills: Currently the College’s 20 undergraduate engineering/computer science programs range from 121 to 128 semester credit hours. Reducing programs to 120 hours will require the cutting of 1 to 3 courses in each program. Due to accreditation constraints, these hours will come from technical and/or supporting soft skill areas. Lowering credit hours reduces the quality of students’ education and skills, and thus their preparation to participate as quality engineers in the companies that hire them.

- The policy reduces competitiveness further: In 1995 UNC-GA passed a policy that set the credit hour requirement of all BS/BA programs at state universities to a maximum of 128 hours. That policy required our engineering/CS programs to reduce from what was then a 132-138 credit hour level. However, NC State’s College of Engineering has several regional/national peers that have maintained the level of 132-135 hours up to this day, this policy would further widen that gap and emphasize the difference to employers in terms of graduate’s preparation and quality.

In closing, the NC State Engineering Foundation Board of Directors unanimously endorses your waiver request. Should there be any questions or need to further emphasize the importance of the waiver of the 120-credit hour limit please contact any member of the board from the enclosure.
<table>
<thead>
<tr>
<th>NAME</th>
<th>TITLE</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bruce R. Baldwin</td>
<td>Specialist Leader, Deloitte Consulting LLP</td>
<td><a href="mailto:brbaldwin@deloitte.com">brbaldwin@deloitte.com</a></td>
</tr>
<tr>
<td>Ashley S. Barnes</td>
<td></td>
<td><a href="mailto:asb@danielesbarnes.com">asb@danielesbarnes.com</a></td>
</tr>
<tr>
<td>Suzanne M. Beckstoffer</td>
<td>Chairman of the board, Bayport Credit Union</td>
<td><a href="mailto:suzanne.beckstoffer@gmail.com">suzanne.beckstoffer@gmail.com</a></td>
</tr>
<tr>
<td>Ashok S. Bhattacharya</td>
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</tr>
<tr>
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</tr>
<tr>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>Gregory N. Washington</td>
<td>Dean, Henry Samuel School of Engineering, Univ of California at Irvine</td>
<td><a href="mailto:gregory.washington@uci.edu">gregory.washington@uci.edu</a></td>
</tr>
<tr>
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<td>President, C.T. Wilson Construction Co., Inc.</td>
<td><a href="mailto:chuck@ctwilson.com">chuck@ctwilson.com</a></td>
</tr>
<tr>
<td>Robert (Rob) R. Womack</td>
<td>Retired Chairman &amp; CEO, Zurn Industries Inc.</td>
<td><a href="mailto:duke695@aoi.com">duke695@aoi.com</a></td>
</tr>
<tr>
<td>Jim Yocum</td>
<td>Exec. Vice President, DRX, Inc</td>
<td><a href="mailto:jim.yocum@drx.com">jim.yocum@drx.com</a></td>
</tr>
<tr>
<td>Deborah B. Young</td>
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<td><a href="mailto:sewmattie@aol.com">sewmattie@aol.com</a></td>
</tr>
</tbody>
</table>
May 14, 2018

To: Dr. Jerome Lavelle  
Associate Dean of Academic Affairs  
College of Engineering  
NC State University  
Campus Box 7904  
Raleigh, NC 27695-7904

From: Mr. Stacey Smith, P.E., Chair and Mr. William Pope, Vice Chair  
Civil, Construction, and Environmental Engineering Industrial Advisory Board

Re: Maximum Credit Hours for Engineering Degrees

We are writing in our capacities as Chair and Vice Chair of the Industrial Advisory Board (IAB) for the Department of Civil, Construction, and Environmental Engineering (CCEE). At its April meeting, the IAB came to understand that the UNC-General Administration Board of Governors (UNC-GA-BOG) has implemented a requirement that no undergraduate degree program in the UNC system may exceed 120 semester credit hours. The IAB was not in favor of this requirement and strongly supports the request for a waiver that you will be submitting to the NC State University Board of Trustees.

The CCEE IAB includes senior engineers as well as executive officers of major civil, construction and environmental engineering firms of regional and in some cases national stature. Our firms collectively hire many graduates of CCEE annually and value the broad and well-rounded education that they bring to the workplace, as well as their engineering skills. In this context, we believe the restrictive policy enacted by UNC-GA-BOG would prevent the CCEE department from adequately preparing young engineers for professional practice. As such, we urge the NC State Board of Trustees to grant a waiver.

The 120-credit hour limit would reduce the skills that NCSU students bring to the workplace and would result in degrees with less credits than other top engineering schools in the U.S. As the civil, construction, and environmental engineering industry, we are designing, building and managing state-of-the-art infrastructure for society. In this capacity, we need the best prepared engineers that we can hire and the credit limit policy will move undergraduate engineering education at NC State in the wrong direction.

Again, the CCEE Industrial Advisory Board strongly endorses your waiver request. Members of the board would be happy to meet with the NC State University Board of Trustees at any time if helpful to emphasize the importance of the waiver of the 120-credit hour limit. The CCEE IAB membership list is attached.
<table>
<thead>
<tr>
<th>President and CEO</th>
<th>Vice President</th>
<th>Executive Officer</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jennifer Brandenburg '86</td>
<td>Vice President - Design Services</td>
<td>Volkert, Inc.</td>
<td>Dan Pleasant '72</td>
</tr>
<tr>
<td>Heather Denny '95 (Past Chair)</td>
<td>Chief Executive Officer</td>
<td>McDonald York Building Company</td>
<td>Bill Pope '83 (Vice Chair)</td>
</tr>
<tr>
<td>Glenda Gibson '87</td>
<td>Vice President</td>
<td>Mott MacDonald</td>
<td>Stacey Smith '92 (Chair)</td>
</tr>
<tr>
<td>Christine Herrick '11</td>
<td>Project Engineer</td>
<td>Kimley-Horn and Associates, Inc.</td>
<td>David Simpson '81</td>
</tr>
<tr>
<td>Tyler Highfill '92</td>
<td>President</td>
<td>Highfill Infrastructure Engineering</td>
<td>Alan Stone '87</td>
</tr>
<tr>
<td>Joe Hines '91</td>
<td>Principal and Director of Economic Development</td>
<td>Timmons Group</td>
<td>Gray Talley '98 (Secretary)</td>
</tr>
<tr>
<td>Jon Holtvedt '15</td>
<td>Assistant Superintendent</td>
<td>Balfour Beatty Construction</td>
<td>Steve Thomas '84</td>
</tr>
<tr>
<td>John Lucey</td>
<td>President and CEO</td>
<td>McKim &amp; Creed</td>
<td>Hans Warren '84</td>
</tr>
<tr>
<td>Tonya Mills '94</td>
<td>Vice President - Business Development</td>
<td>Tri Properties Inc.</td>
<td>Mike Wayts</td>
</tr>
<tr>
<td>Mike Munn '95</td>
<td>President and CEO</td>
<td>McAdams Company</td>
<td></td>
</tr>
</tbody>
</table>
May 2, 2018

Dr. Jerome Lavelle
Associate Dean, Academic Affairs
College of Engineering
NC State University

Dear Dr. Lavelle,

As members of the Chemical and Biomolecular Engineering Alumni Advisory Board, we strongly support a waiver petition to the 120-credit hour maximum policy recently passed by the UNC Board of Governors. As proud alumni of this department who work as engineers and managers for diverse companies and agencies, we value the competency and quality of our graduates and the competitiveness of our department to attract exceptional students and faculty.

In 1995 UNC-GA passed a policy that set the credit hour requirement of all BS/BA programs at state universities to a maximum of 128 hours. That policy required our program to reduce from what was then a 132-138 credit-hour level. However, several of our regional/national peers in chemical engineering have maintained the level of 128-133, in particular Georgia Tech, our closest peer institution, and one with which we are perhaps the most competitive in attracting outstanding undergraduates in the southeast US. The table below shows the most recent undergraduate rankings from *US News and World Report* and each program’s credit hours to graduate. (Those universities marked with an asterisk do not use credit hours to track course load.)

<table>
<thead>
<tr>
<th>US NWR Ranking</th>
<th>Che Program (166 programs accredited)</th>
<th># of Credit Hours to Undergraduate Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MIT</td>
<td>***</td>
</tr>
<tr>
<td>2</td>
<td>UC Berkeley</td>
<td>120</td>
</tr>
<tr>
<td>3</td>
<td>Georgia Tech</td>
<td>132</td>
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<tr>
<td>4</td>
<td>Stanford University</td>
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<tr>
<td>5</td>
<td>University of Wisconsin</td>
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<td>6</td>
<td>University of Texas, Austin</td>
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<td>7</td>
<td>University of Minnesota</td>
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<tr>
<td>8</td>
<td>Cal Tech</td>
<td>***</td>
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<tr>
<td>9</td>
<td>University of Delaware</td>
<td>126</td>
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<tr>
<td>10</td>
<td>Princeton University</td>
<td>***</td>
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<tr>
<td>11</td>
<td>University of Illinois</td>
<td>129</td>
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<tr>
<td>11</td>
<td>University of Michigan</td>
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<tr>
<td>13</td>
<td>Purdue University</td>
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<tr>
<td>14</td>
<td>Cornell University</td>
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<tr>
<td>15</td>
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<tr>
<td>16</td>
<td>Northwestern University</td>
<td>***</td>
</tr>
<tr>
<td>17</td>
<td>NC State University</td>
<td>125</td>
</tr>
<tr>
<td>17</td>
<td>Penn State</td>
<td>133</td>
</tr>
<tr>
<td>17</td>
<td>University of Colorado</td>
<td>128</td>
</tr>
</tbody>
</table>

At present, the NC State chemical engineering program is light when compared to these peer programs—and the proposed policy change would *further* widen that gap and emphasize the difference to employers.
in terms of our graduates' preparation and quality. This is not a message that we want to send to the industry partners who hire our students.

The proposed reduction in credit hours would reduce quality of skills; reducing our program to 120 hours will require removing two courses from the curriculum. Due to accreditation constraints, these hours would likely come from supporting technical and/or soft-skill areas. In the 21st century, knowledge is expanding exponentially, and the problems that chemical engineers solve are complex and multi-disciplined. Now is exactly the wrong time to be cutting important content in either of these categories.

While there are fewer chemical engineers who take the FE exam compared to other disciplines, it is a valuable credential for those going into process/plant design or project management roles. NC State CBE graduates have typically performed better than the national average over the last five years. Cutting engineering content in the curriculum by reduction of credit hours required would reduce student preparation for this important career step, and once again place our students at a competitive disadvantage.

As the department’s Alumni Advisory Board, we urge that the waiver petition be approved by campus administration so that NC State’s College of Engineering and our department may continue to be a national leader.

Yours sincerely,

CBE Alumni Advisory Board

Mr. Billy Bardin  
Global Operations Technology Director  
Dow Chemical

Mr. Thad Leister  
Global Operations Manager  
GE Hitachi Nuclear

Ms. Ann Quillian  
Lead Environmental Specialist  
Duke Energy

Mr. Nick Clausi  
Vice President, Global Chemicals Technology  
Exxon Mobil

Ms. Yang Luo  
Director R&D  
Praxair

Mr. Joe Royer  
Development Manager, Emerging Business  
Milliken

Ms. Ana Piqueras Davis  
Head, Health Safety and Environment  
Syngenta

Mr. Ellis McGaughy  
Site Manager, Fayetteville Works  
Chemours

Mr. Billy Willis  
CTO  
Duke University Health System

Mr. John Davis  
Head, Finished Product Processing  
Syngenta

Mr. Nate Miranda  
Director, Technical Service and Development  
MonoSol

Mr. Ron Zumstein  
Sr. Vice President Corporate Engineering  
Albemarle

Mr. Danny Henderson  
Vice President, Manufacturing  
Corning

Mr. Tim Nolan  
Technology Fellow  
Eastman Chemical

Mr. Mark Hurley  
CEO  
Blueknight Energy Partners

Mr. Russ O’Dell  
Global Manager PET (retired)  
KoSa

CC: Dean L. Martin-Vega
May 17, 2018

Jerome P. Lavelle
Associate Dean
College of Engineering
NC State University

Dear Dr. Lavelle,

On behalf of the faculty of the Department of Materials Science and Engineering (MSE), I am submitting this support letter for a waiver to the 120-credit hour maximum allowance for our undergraduate curriculum, which leads to a BS degree in materials science and engineering. The MSE department currently has three undergraduate curriculum tracks, all requiring completion of 126 credit hours: an MSE base curriculum, a bio-materials concentration, and a nano-materials concentration.

In the MSE department at NC State, we provide a broad curriculum, covering all classes of materials, instead of asking students to select a specific materials track; this attribute of our curriculum allows students to be competitive in a range of industries and graduate programs. Additionally, there are several technical courses required in our curriculum, which exceed the ABET minimum: (1) a required statistics course (3 credits) was incorporated at the request of our External Advisory Board who believed that our students were lacking experience with experimental design; (2) an introductory cell biology course (4 credits) was incorporated into the bio-materials concentration since it serves as a pre-requisite course for many of the bio-materials concentration electives; (3) an organic chemistry course (4 credits) is required as a pre-requisite for MSE courses focused on polymers and soft materials.

While we are able to successfully fulfill ABET requirements within a 120-credit hour limit that includes the aforementioned required technical courses, the current 126-credit hours in each curriculum allows incorporation of two technical electives into the bio-materials curriculum and three technical electives into the base and nano-materials curricula. We strongly believe that removing the required technical electives will result in the following consequences for our students:

- Graduates of the MSE department will be underprepared for graduate school and/or industry positions without required technical electives that allow them to choose additional courses in advanced mathematics, chemistry, and physics, computer-aided design, computer programming, and materials processing. This is the only tool available to formally encourage students to take courses beyond the most basic curriculum.
- Fewer students will be motivated to complete high impact activities including double majors and minors, research credit, and study abroad without the technical elective flexibility.
- Students will not be competitive with MSE graduates from NCSU peer institutions.
  - Georgia Tech requires 132 credits with 5 credits of advised electives
  - Virginia Tech requires 126 credits with 12 credits of technical electives
  - University of Illinois Urbana-Champaign requires 129 credits with 6 credits of technical electives
In addition, we have discussed this issue with our External Advisor Board members, and they have prepared the following statement:

_The members of the MSE External Advisory Board have been actively engaged with the MSE Undergraduate Program Committee to provide guidance over the last five years with regard to curriculum initiatives and continuous improvement practices. We are excited to work with an undergraduate program that continues to be innovative in preparing its students to be competitive in the national and global marketplace. During our previous campus visits, we spent time with undergraduate students discussing their experiences in the department, and we feel strongly that the impactful, collaborative, and cross-disciplinary activities students often pursue are motivated by high department expectations and rigorous coursework. While we support and respect the ABET accreditation process, we also feel strongly that a quality education requires flexibility in order to mold to rapidly changing expectations within the disciplinary community and also adapt to desires of students with varying interests and career goals._

_NC State is the only university in the state of North Carolina to offer a BS degree in materials science and engineering; we strongly support a waiver to the 120-credit hour limit, which will enable students to remain competitive for top-tier graduate programs and industry positions and ultimately become leaders in the field._

Thank you for your consideration.

Best Regards,

[Signature]

Donald W. Brenner
Kobe Steel Distinguished Professor and Interim Department Head
May 4, 2018

Dr. Jerome P. Lavelle
Associate Dean, Academic Affairs
21 Current Drive
120 Page Hall, College of Engineering
NC State University
Raleigh, NC 27695

Reference: Waiver to UNC Policy 400.1.5 (I)

Dear Dr. Lavelle:

The North Carolina Section of the American Society of Civil Engineers (ASCE) emphatically endorses NC State University’s College of Engineering waiver petition of UNC Policy 400.1.5(I). ASCE’s strong support for civil engineering education is based upon its Policy Statement 465. The entire PS 465 is enclosed for a full description of our position. PS 465 states in part, “... changes have created a need for civil engineers to have a greater breadth of capability and specialized technical competence, placing increased expectations on civil engineers in their role of protecting the health, safety and welfare of the public.”

Several other states have already allowed their engineering schools to require (in most cases just 8 additional hours) more than a mandated maximum of 120 hours. Unfortunately, there is not enough time within the current curriculum to offer the technical depth and breadth of classes necessary to train our future engineers. Many civil engineering programs have already been forced to cut fundamental classes – surveying for example – from their degree requirements.

To competently train the next generation of civil engineers for professional practice and to maintain our competitive edge around the world, the College of Engineering’s waiver request of UNC Policy 400.1.5(I) must be approved.

If any questions should arise, please feel free to contact me by phone at (727) 421-1730 or by e-mail at engharris@yahoo.com.

Sincerely,

[Signature]

David Harris, PE
President, North Carolina Section, ASCE
Appendix C
Application for Exception for an Undergraduate
Degree Exceeding 120 Credit Hours

Degree Title and Type (BS/BA) Forest Management B. S.
Subplan title (if appropriate) No Subplan

Number of credit hours over 120 8

Please describe why this program cannot require 120 credit hours, including specific reference to licensure or accreditation requirements either through links or as attachments to this form.

The Society of American Foresters (SAF) accredits the forest management curriculum at North Carolina State University. SAF prescribes the topics that the curriculum must address. SAF periodically (10 years) reviews how the department covers those topics via coursework and related experiences in which students engage. The requirements for accreditation include general education as well as technical coursework, and the core sciences and math from which the technical coursework grows.

Graduation from an SAF-accredited forestry or forest management curriculum is usually an important requirement for professional certification or registration or licensure in states throughout the United States. Though requirements vary in small ways, state examinations universally treat the same core topics. Moreover, such examinations typically have very applied and practical grounding in terms of the questions asked or problems posed.

A hallmark of the North Carolina State University degree in forest management has been its 9-week, 9-credit field course, for which the program has been lauded during every SAF accreditation review for decades. Moreover, employers demand forest management students have excellent field and technical skills. Earning these nine credit hours occurs during the summer between students’ second and third year in the curriculum. Therefore, the summer field course does not affect the eight-semester array of courses constituting the normal degree path for students. The eight semesters actually only require 119 hours. The total degree requirements are therefore 128 hours.

A student properly prepared and applying his or her academic prowess should complete the degree requirements in four academic years.

Please return this form to the Office of Undergraduate Courses and Curricula by July 1, 2018.
North Carolina State University

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

Endorsed By:

[Signature]

Head, Department/Program

Date

Endorsed By:

[Signature]

College Dean

Date

Approved By:

[Signature]

Vice Chancellor and Dean - DASA

Date

Approved By:

Executive Vice Chancellor and Provost

Date

Approved By:

Board of Trustees

Date
Appendix D
Application for Exception for an Undergraduate
Degree Exceeding 120 Credit Hours

Degree Title and Type (BS/BA) Bachelor of Environmental Design in Architecture (BEDA)

Subplan title (if appropriate) N/A

Number of credit hours over 120 6

Please describe why this program cannot require 120 credit hours, including specific reference to licensure or accreditation requirements either through links or as attachments to this form.

The School of Architecture is requesting an exception to the 120-credit hour limit because we offer a professional degree, and as such, the program has to meet the accreditation standards as defined by the National Architectural Accrediting Board (NAAB). Currently, architecture students at NC State must complete a four-year, pre-professional 126-credit hour Bachelor of Environmental Design in Architecture degree (BEDA) and a one-year, 30-credit hour professional Bachelor of Architecture degree (B.Arch.) in order to qualify for professional licensure. This “4+1” model is common among other accredited architecture programs in the U.S. Work experience and successful completion of the Architect Registration Exam (A.R.E.) are additional requirements of licensure.

NAAB has defined 26 learning objective categories, known as Student Performance Criteria (SPC), that each accredited program must achieve. The SPC’s relate to a broad range of professional competencies that are specific to architecture and that are critical abilities and areas of understanding that graduates must possess. Each SPC has a list of sub-topics that constitutes the overall SPC. Requirements of these sub-topics must be met in order to achieve the overall SPC. See p.15-18 in this link:


NAAB also requires a minimum of 45 credit hours in non-architecture courses that have content beyond the required SPC’s. We achieve this requirement primarily through NC State's General Education Program courses.

The School of Architecture’s 126-credit hour model (see 8-semester display: https://oucc.dasa.ncsu.edu/dn-12edab-nosubplan-2168/) is structured precisely to meet each of NAAB’s SPC and general education requirements and to provide a high quality professional degree program that will prepare students for licensure and practice. Reducing the hours to 120 in the Bachelor of Environmental in Architecture program would eliminate critical courses and limit our ability to meet NAAB’s SPC requirements. Eliminating courses in the BEDA program would potentially hurt students' chances of being accepted to professional degree programs (B.Arch. or M.Arch.) in other universities because they will be less prepared in architecture discipline-based subject matter.

As a note, UNC-Charlotte is the only other accredited architecture program in the state of North Carolina. Their four-year, pre-professional degree program requires 128 credit hours. They also have a one-year, 30-credit hour professional degree program. The School of Architecture at UNCC has submitted an exception request to the UNCC Board of Trustees, and the exception has already been approved.

Thank you for considering this request. If you have questions, please contact:

David B. Hill, AIA
Professor and Head of the School of Architecture
david_hill@ncsu.edu
919.741.1743

Please return this form to the Office of Undergraduate Courses and Curricula by July 1, 2018.
North Carolina State University

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

Endorsed By:

[Signature]

ARCHITECTURE 06.27.18
Head, Department/Program Date

Endorsed By:

[Signature]

6-28-18
College Dean Date

Approved By:

[Signature]

10/26/2018
Vice Chancellor and Dean - DASA Date

Approved By:

Executive Vice Chancellor and Provost Date

Approved By:

Board of Trustees Date
Appendix E
Application for Exception for an Undergraduate
Degree Exceeding 120 Credit Hours

Degree Title and Type (BS/BA) Middle Grades Education (13MIDEEDBS)
Subplan title (if appropriate) Language Arts and Social Studies Concentration

Number of credit hours over 120 6 hours

Please describe why this program cannot require 120 credit hours, including specific reference to licensure or accreditation requirements either through links or as attachments to this form.

The Middle Grades Education Language Arts and Social Studies (MSL) degree program is a professional teacher education program that leads to dual licensure in middle grades English language arts and social studies. The program is currently 126 hours.
https://ced.ncsu.edu/programs/middle-grades-language-arts-social-studies-education-msl-bachelor/

The MSL program consists of courses in three areas.
1. NC State General Education Program (GEP) requirements - 39 semester hours
2. Education Courses, including required education core courses, major area courses, and required field placements - 39 semester hours
3. Required Teaching Content course - 48 semester hours

Total - 126 semester hours

We are requesting this exception for the MSL program to remain at 126 hours given teacher education licensure requirements and requirements for undergraduate programs at NC State. In each of these three areas listed above, we have no flexibility to reduce the required number of hours.

We understand that dropping GEP courses (39 semester hours) is not permitted as a path to reach 120 hours. The required Education Courses (39 semester hours) represent the minimum number of courses that program faculty in the College of Education have deemed necessary for the preparation of teachers. Included among these 39 hours are 18 hours of core education courses required of all education majors in the College of Education. Another three courses (11 hours) are focused on teaching methods. The remaining 10 hours are part of a required one semester full- time internship.

With regard to the third area, Required Teaching Content courses (48 semester hours), the North Carolina Department of Public Instruction sets the rules for teacher licensure and has stipulated that all licensed teachers must have minimum content preparation in each field they are initially licensed to teach. That minimum is equivalent to a bachelor’s degree or minimum 24 semester hours in the content field. In order to meet this requirement, the MSL program includes 24 semester hours in English language arts content and 24 additional semester hours in social studies content (i.e. history, political science, geography, economics, behavioral sciences) for a total of 48 hours in this area.

Please return this form to the Office of Undergraduate Courses and Curricula by July 1, 2018.
North Carolina State University

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

Endorsed By:
John K. Lee 06/29/2018
Head, Department/Program Date

Endorsed By:

College Dean Date

Approved By:

Vice Chancellor and Dean - DASA 10/26/2018

Approved By:

Executive Vice Chancellor and Provost Date

Approved By:

Board of Trustees Date
### Proposed Bonus Grid for Board of Trustees

**Track/XC Program**

<table>
<thead>
<tr>
<th></th>
<th>2018-19 Bonus Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Head Coach</strong></td>
<td><strong>W Track/XC Head Coach</strong></td>
</tr>
<tr>
<td>Men</td>
<td>5,000</td>
</tr>
<tr>
<td>Women</td>
<td>5,000</td>
</tr>
</tbody>
</table>

### Academic Progress Rate

<table>
<thead>
<tr>
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<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Year FGR ≥ 75%</td>
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<td>5,000</td>
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</table>

### Academic Graduation Rate

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<thead>
<tr>
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<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Year APR ≥ 1000</td>
<td>5,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

### Competitive

#### Coach of the Year (may be earned once per year, total, for all three seasons)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC Coach of the Year</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>National Coach of the Year</td>
<td>10,000</td>
<td>10,000</td>
</tr>
</tbody>
</table>

### Cross Country

#### ACC Champions (earns highest men’s and women’s bonus in each category)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC Champions</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Place as a Team (score)</td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>6th to 10th Place</td>
<td>12,500</td>
<td>6,000</td>
</tr>
<tr>
<td>11th to 15th Place</td>
<td>8,000</td>
<td>8,000</td>
</tr>
<tr>
<td>National Champions</td>
<td>15,000</td>
<td>15,000</td>
</tr>
</tbody>
</table>

#### NCAA Championship Meet

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
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<td>8,000</td>
<td>8,000</td>
</tr>
<tr>
<td>National Champions</td>
<td>15,000</td>
<td>15,000</td>
</tr>
</tbody>
</table>

#### Indoor Track

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
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<td>5,000</td>
<td>5,000</td>
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</tr>
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<td>8,000</td>
<td>8,000</td>
</tr>
<tr>
<td>National Champions</td>
<td>15,000</td>
<td>15,000</td>
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</tbody>
</table>

#### Outdoor Track

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
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<td>5,000</td>
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<td>8,000</td>
</tr>
<tr>
<td>National Champions</td>
<td>15,000</td>
<td>15,000</td>
</tr>
</tbody>
</table>
REPORTS
CHAIR OF THE NC STATE UNIVERSITY FACULTY REPORT
TO THE NORTH CAROLINA STATE UNIVERSITY BOARD OF TRUSTEES UNIVERSITY AFFAIRS COMMITTEE

Submitted October 17, 2018

The last report to the Board of Trustees was submitted on August 28, 2018. Since that time, through October 9, 2018 the following topics have been discussed at the full Faculty Senate:

**Spring 2018 Employee Engagement Survey: Results Summary and Next Steps** (August 28)
*Marie Williams, Associate Vice Chancellor for Human Resources*
*Nancy Whelchel, Director for Survey Research, Office of Institutional Planning and Research*

The discussion included an overview of the Employee Engagement Survey (a 5-year UNC initiative), overall results from the Spring 2018 administration of the survey at NC State, and plans for using the data.

**Campus IT Accessibility** (September 11)
*Crystal Tenan, IT Accessibility Coordinator*

University IT Accessibility Coordinator Crystal Tenan gave a brief overview of IT accessibility resources available for faculty members to make their course materials accessible, including the Captioning Grant, workshops and online training. Senators learned about some basic accessibility tips and tools.

**GLBT Advocate Program** (September 11)
*Preston Keith, Assistant Director, GLBT Center*

Senators were introduced to the GLBT Advocate Program designed to create a visible network of support and resources for students, faculty and staff as members of the NC State community.

**Human Resources Re-organization Project** (September 25)
*Marie Williams, Associate Vice Chancellor for Human Resources*

Last year, (November 14, 2017) Faculty Senate, Human Resources, and Sibson Consulting discussed campus needs, procedures and structures regarding Human Resources functions. The discussion focused on the Sibson report that included an overview of Faculty Senate primary concerns and Sibson suggestions to improve processes and to reposition Human Resources.

**Transportation** (October 9)
*Bruce McDonald, Associate Professor of Public Budgeting and Finance*

As part of its engagement initiative, Transportation is interested in stakeholder input to its processes. Faculty were alerted to and encouraged to respond to a new survey on transportation and parking to be deployed on October 10th.

**Salary Equity Study Results** (October 9)
*Sheri Schwab, Interim Vice Provost for Institutional Equity and Diversity*
*Katharine Stewart, Vice Provost for Faculty Affairs*
*Marcia Gumpertz, Professor, Department of Statistics (formerly Assistant Vice Provost for Faculty Diversity)*
*Mary Lelik, Senior Vice Provost for Institutional Research and Planning*
The Salary Equity Study is conducted every three years to assess whether there are salary differences by group (gender, underrepresented minority) after accounting for some relevant professional factors. Study results are useful to develop a plan to address the salary inequities; and has potential for insight into factors giving rise to inequities. The discussion reviewed 2016/2017 study, the methods and how these differed from prior years, and an overview of measures being implemented to address the study's findings.

Other items:

The Fall General Faculty Meeting is scheduled for October 30, 2018 in the Talley Student Center, Room 4140, Governance Chamber. The topic is Student Well-Being. Faculty will learn about programs that assist students in addressing life experience challenges and supports students’ readiness to learn.

The three Faculty Senate Committees (Academic Policy; Governance and Personnel Policy; Resources and Environment) discuss many issues and some of them are resolved without coming to the full Senate. Committee reports are posted on the website: https://facultysenate.ncsu.edu/

Respectfully Submitted by:

Carolyn L. Bird, Ph.D.
Professor of Family Resource Management
Chair of the NC State University Faculty, 2017-2019
October 25, 2018

Honorable Trustees,

It has already been a very exciting and busy year for the NC State University Staff Senate. Representing approximately 6,000 staff, across the University and all 100 counties of the State of North Carolina, Staff Senate provides opportunities for staff to inquire, engage and serve.

The Staff Senate has addressed many constituent questions and concerns during this year’s first quarter including items related to:

- Wage compression following new state-mandated $31,200/year salary minimum;
- Hurricane Florence and adverse weather time reporting;
- Annual enrollment being a month before HCA enrollment, making it difficult to compare options;
- SHRA and EHRA Annual Raise Process (ARP);
- 2018 Special Bonus Leave offsetting provision;
- Wolftime;
- Parking; and
- Staff getting large increases in volume of work without increases in pay.

The Staff Senate continues to work productively with campus leaders and especially the AVC for Human Resources, Marie Williams, to find solutions that addresses constituents’ questions and concerns. Staff Senate also created a new committee on “Employee Experience and Relations” that deals with issues around the staff experience such as work/life balance, campus environment, and transportation. One of the first initiatives this committee is working on is to establish a Staff Advisory Council in every college and administrative area to better address local staff needs.

The Staff Senate is currently:

- Running a Food Drive to support the Food Bank of Central and Eastern North Carolina to help victims of Hurricane Florence;
- Planning a Dancing Around the World Event for staff, students, and faculty to celebrate the diversity of dance from different regions of the world;
- Providing monthly greenway bike tours, a Floating Island tour, an agro-ecology farm tour, and a Wake County Landfill Tour;
- Operating a Computer Loan Program for qualifying staff members making less than $40K per year; and
- Revising and amending the organization’s bylaws.

The Staff Senate has worked hard this year to improve communication with constituents through interesting and timely communication disseminated through multiple channels (newsletters, social media, Youtube, and Billboards) and through supporting staff senators in communicating directly with their constituents at least monthly. We are looking forward to the rest of the year as we continue to support and encourage staff.

Respectfully Submitted,

Jason Painter

Jason Painter, PhD
Director, The Science House
Chair, NC State Staff Senate, 2018-2019
N. C. STATE UNIVERSITY
UNIVERSITY UNDERGRADUATE CERTIFICATE PROGRAM FORM

COLLEGE/DEPARTMENT/PROGRAM NAME:
College of Agriculture and Life Sciences/Plant and Microbial Biology
College of Natural Resources/Forestry and Environmental Resources

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

CERTIFICATE TITLE:
Undergraduate Certificate in Field Botany

CIP DISCIPLINE#: 23.0301

PROPOSED OR CURRENT PROGRAM CODE: 11FBOCTU

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

PROPOSED EFFECTIVE DATE: Fall 2018

APPROVED EFFECTIVE DATE:

ATTACHMENTS TO BE INCLUDED:
☒ Statement of Justification for Program
☒ Statement of Program Objectives
☐ Proposed Revision(s) with Reasons
☒ List of Program Requirements (use attached Format B)
☒ Catalog Description of Proposed Certificate
☐ Number of Certificate recipients in the past Five Years
☒ Projected Enrollment
☒ Admission Requirements
☐ Statement on Other Departments Likely to be Affected and Summary of Consultations with those Departments
☒ Signature Page
☒ Routing Form
North Carolina State University

This request to establish or discontinue a University Undergraduate Certificate Program or change the Title for an Existing Certificate Program has been reviewed and approved by the appropriate campus committees and authorities.

Undergraduate Certificate in Field Botany
Title of Certificate

Endorsed By:
Margaret Elmore
Head, Department/Program
1/4/18

Recommended By:
Jane B. Black
Chair, College Curriculum Committee
Date 1/3/18

Endorsed By:
Date 2/14/18
College Dean

Recommended By:
Alexandra R. Kershner
Date 2/14/18

Vice Provost, DELTA (if DE degree or certificate)

Recommended By:
Marta Kramer
Date 3/14/18
Chair University Courses and Curriculum Committee

Approved By:
Date 3/14/18
Dean of Undergraduate Academic Programs

Recommended By:
Date 3/23/18
Dean's Council

Approved By:
Date 6/22/18
Provost

Approved By:
Date 9/25/18
Chancellor
Proposal to Develop an Undergraduate Certificate in Field Botany
17 November 2017

1. Statement of Justification for Program. As the population of the United States and the world increases, the need for management and sustainable use of vascular plant ecosystems becomes increasingly important. A major component of management is plant identification, because all management plans must be tailored to the affected plants. Plant identification is also critical to satisfy the requirements of several mandatory state and federal programs, including wetland delineation, environmental impact statements, environmental planning reports, and conservation of rare plants. Unfortunately, recent studies have shown that agencies are suffering from insufficient expertise in field botany. In a recent survey, botanists in the federal government chose lack of staff with appropriate botanical training as one of the top three resources limiting their agency and 90% indicated they did not have enough botanically trained staff to meet their needs (Kramer et al. 2010). Students completing the Certificate in Field Botany will find the certificate very helpful in securing employment with the U. S. Army Corps of Engineers (protecting wetlands), private consulting firms (preparing impact statements and planning reports), the U. S. Fish and Wildlife Service (conserving threatened and endangered plants), Natural Heritage Programs (conserving rare plants), and private conservation organizations.

The proposed suite of four courses for the Certificate in Field Botany (see Format B and Table 1 below) is currently not required in any major or minor, or any other certificate program at N. C. State University, indicating unmet need. Although three of the four required courses are found among the 14 elective courses in the Plant Biology minor, no duplication exists because a student could earn the Plant Biology minor without taking any of the courses required in the Field Botany certificate. Furthermore, the fourth course (FOR 339, Dendrology) is not found among the Plant Biology minor electives. Thus, the proposed certificate does not duplicate any other program at N. C. State University.

The proposed certificate meets the University’s strategic plan goal #3 to “... address the major challenges that confront the world,” and goal #5 “... to be locally responsive to the needs of our community and state...” It meets the College of Agriculture and Life Sciences’ strategic theme #2 to “ensure environmental stewardship and sustainability of air, land, soil and water resources.” It meets the College of Natural Resources’ strategic goal #5 to “...create positive change and contribute to ecological and socioeconomic sustainability.”


2. Statement of Program Objectives/Outcomes. The objectives of this certificate are to prepare students to be centrally involved in the sustainable management of vascular plant ecosystems. After completing the certificate requirements, students will be (1) able to identify about 300 vascular plant species by sight, using the scientific name, botanical family and common name, (2) able to use plant identification keys, (3) fluent in domain specific terminology, and (4) familiar with species-site relationships.
3. **Proposed Revisions.** Not applicable.

4. **List of Program Requirements.** The certificate requires four courses, a total of 14 semester credit hours. The proposed coursework is shown in Format B and Table 1. Students must earn a grade of C- or better in all four required courses. No other requirements or time limits exist. Three of the required courses have PB 200 as a prerequisite. A prerequisite of PB 200 should not be problematic for students, because it is commonly required in agricultural, forestry, life science, and natural resource disciplines.
# CURRICULUM REQUIREMENTS

**Format B**

<table>
<thead>
<tr>
<th>Degree/Plan Title: Undergraduate Certificate in Field Botany</th>
<th>Plan SIS Code: 11FBOCTU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concentration/Subplan Title:</td>
<td>Subplan SIS Code:</td>
</tr>
<tr>
<td>Indicate requirements status: Current: Proposed: X</td>
<td>Proposed Effective Semester: Fall 2018</td>
</tr>
<tr>
<td>New Degree Audit required? (Y or N) No</td>
<td></td>
</tr>
</tbody>
</table>

**Critical Path Courses** - Identify using the code (CP) which courses are considered critical path courses which represent specific major requirements that are predictive of student success in a given program/plan. Place the (CP) next to the credit hours for the course.

## MAJOR FIELD OF STUDY REQUIREMENTS:

<table>
<thead>
<tr>
<th>Required Courses/Groups/ Electives:</th>
<th>Credit Hours</th>
<th>GEP category, if applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicate if course or course groupings have a C-wall or MGPA requirement and which are considered Critical Path courses – indicate with (CP) next to applic. course.</td>
<td>3</td>
<td>List GEP category and hours satisfied by a Major requirement</td>
</tr>
<tr>
<td>PB 220, Local Flora (C wall)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>FOR 339, Dendrology (C wall)</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PB 403, Systematic Botany (C wall)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PB 464, Rare plants (C wall)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Concentration Courses/Groups/Electives:**

| None | None | None |

**Free Electives:**

| None | None |

**Total credit hours under Major Field of Study:**

| Minimum 27 hours required in program area | 14 hours |

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Table 1. Proposed course work for Certificate in Field Botany.

<table>
<thead>
<tr>
<th>Course</th>
<th>Course Title</th>
<th>Credits</th>
<th>Course Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>PB 220</td>
<td>Local Flora</td>
<td>3</td>
<td>PB 200 or BIO 181</td>
</tr>
<tr>
<td>FOR 339</td>
<td>Dendrology</td>
<td>4</td>
<td>None</td>
</tr>
<tr>
<td>PB 403</td>
<td>Systematic Botany</td>
<td>4</td>
<td>PB 200 or PB 250 or BIO 183</td>
</tr>
<tr>
<td>PB 464</td>
<td>Rare Plants</td>
<td>3</td>
<td>PB 200 or PB 220 or PB 403 or PB 405</td>
</tr>
</tbody>
</table>
5. **Catalog Description.** The Certificate in Field Botany will provide the opportunity to develop skills in vascular plant identification, through both sight recognition and use of taxonomic keys, and knowledge of domain specific terminology. The certificate requires 14 hours of traditional course work in four courses. The certificate is a non-degree program offered jointly by the Department of Plant and Microbial Biology (PMB) and Department of Forestry and Environmental Resources through on-campus classroom instruction, but is administered by PMB. It is available to students pursuing an undergraduate degree in any major at N. C. State University or to Non-Degree Studies (NDS) students. Students who have earned an undergraduate degree may also return as NDS students to complete the certificate. Students completing the certificate will find it very helpful in securing employment with the U.S. Army Corps of Engineers (protecting wetlands), private consulting firms (preparing impact statements and planning reports), the U.S. Fish and Wildlife Service (conserving threatened and endangered plants and improving wildlife habitat), Natural Heritage Programs (conserving rare plants), and private conservation organizations.

6. **Number of Certificate Recipients in the Previous Five Years.** Not applicable.

7. **Projected Enrollment.** Based upon enrollments in both PB 220 (Local Flora) and FOR 339 (Dendrology) over the last four years, we anticipate an initial enrollment of 8-10 students per year. We hope to grow this enrollment to 15-20 students within five years.

8. **Admission Requirements.** Students must be enrolled in an undergraduate degree at N. C. State University or as a Non-Degree Studies student (NDS).

Certificate coordinator: Dr. Alexander Krings, 2109 Gardner Hall, Box 7612, 919-515-2700, akrings@ncsu.edu.

9. **Statement on Other Departments Likely to be Affected.** Not applicable.

10. **Signature Page (see attached).**

11. **Routing Form (see attached).**
MEMORANDUM OF AGREEMENT FOR DUAL DEGREE PARTNERSHIP
Collaborative Academic Agreement

Establishment of a dual degree with N.C. State University requires completion of this MOA and signatory approval by the Provost. In addition, SACSCOC must be notified 6 months prior to implementation of this agreement.

Complete the following and provide thorough explanation and answers to each item.

I. N.C. State Participation:

Level of Degree: Master
College Participating: College of Textiles
Other Participating College(s), if applicable: N/A
Full Title of Degree Conferred (Include concentration title if applicable.):
Master of Textiles, NC State University;
The academic degree of Master of Engineering in Clothing Design and Engineering, Zhejiang Sci-Tech University
Name and contact information for the primary developer of Agreement:
Yingjiao Xu, Director of Graduate Programs,
Department of Textiles and Apparel, Technology and Management,
College of Textiles
yxu11@ncsu.edu
Tel: 919-515-1858

Name and contact information for the program coordinator, if different from developer:

II. Participating Partner Institution: If multiple partners, complete separate form for each

Name of Partner Institution:
Zhejiang Sci-Tech University (ZSTU)

Location of Institution (Full Physical Address):
928 2nd Avenue, Xiasha Higher Education Zone, Hangzhou, Zhejiang 310018, China

Name and contact information for the primary developer of this Agreement
Xiaofen Ji, Chair of Executive Committee
School of International Education
Zhejiang Sci-Tech University
928 2nd Ave,
Xiasha Higher Education Zone, Hangzhou, Zhejiang 310018, China
xiaofenji@zstu.edu.cn
Name and contact information for the program coordinator, if different from developer:

Level of Degree:
Master

Full Title of Degree Conferred (Include concentration title if applicable):
The academic degree of Master of Engineering in Clothing Design and Engineering

Partner Institution Accreditation Status:
Accredited by China Academic Degrees & Graduate Education Development Center (CDGDC)

Duration of Agreement:
This Agreement will be for 5 years from August 1st, 2019 to July 31, 2024. There will be 4 consecutive intakes of students with one intake in every academic year after the Program is approved. (With the MOA to be effective from August 1st 2019, the first intake of students will be in Fall, 2020 as the general graduate school admission exams occur in December of each year).

III. Timeline: (Note that the program cannot begin recruitment or matriculation of students until after SACSCOC notification and/or approval. SACSCOC reviews new program proposals twice per year.)

Proposed Start Date of Agreement: August 1st, 2019
Expected Date for recruitment and advertising: August 1st, 2019
Expected Date of student matriculation/enrollment in dual degree program:
September 1st, 2020
(The first enrollment at ZSTU will be September 1st, 2020. Students will attend NC State in their 2nd year (2021) to start the dual degree program).

IV. Attachments: In addition to this MOA, attach other applicable documentation and list each attachment/appendices below: (ex: SACSCOC prospectus, letter of support from College Dean and/or Provost, organizational charts, faculty CV’s)

The following documents can be found in the attachment:
1) Letter of Support from Dean Hinks (College of Textiles, NC State University)
2) Letter of Support from President Chen of ZSTU

V. Collaborative Objectives:

1. What is the purpose and benefits of the dual degree partnership?
Adhering to the principles of non-profit in the Sino-foreign cooperation in running schools, ZSTU will utilize high quality educational resources from NC State and learn from NC State in terms of its advanced education philosophy, teaching methodology and schooling and management experience, in order to enhance the competitiveness of ZSTU in the field of the fashion design, production, and marketing. Another purpose of this collaboration is to recruit high quality students from this program for the master’s program at NC State.
This project is to be carried out with a view to produce high caliber, multi-disciplinary and application oriented specialized students who are proficient in Chinese and English with global vision and insight of fashion industry trend. In addition, these students will also possess solid knowledge and demonstrated skills in garment engineering specialty, comprehensive competence in terms of fashion brand operation, management of supply chain and analysis of fashion consumer behavior.

This agreement is to define the terms for students to obtain dual Master of Textiles (MT) and Master of Engineering degrees from North Carolina State University (NC State) and Zhejiang Sci-Tech University (ZSTU), respectively, on the conditions that the students fulfill the degree requirements of both universities. This agreement does not create a new degree; rather, it articulates the terms for both universities accepting transfer credits, which are applied toward MT and Master of Engineering degrees at NC State’s College of Textiles and Zhejiang Sci-Tech University’s School of International Education, respectively. Students are recruited from China by Zhejiang Sci-Tech University. The MT/ Master of Engineering dual degree program provides the students (enrolled at Zhejiang Sci-Tech University) an opportunity to gain insights of the U.S. textiles industry from the perspectives of marketing, design and product development, technology, and management. The Dual degree program also provides a great opportunity for NC State College of Textiles to recruit a prepared student population (2nd year master’s students at Zhejiang Sci-Tech University). The different perspectives these students bring will contribute greatly to the diversity and leaning of the other students enrolled in the Textiles program at NC State. This dual degree program enables students to earn both degrees in 3 years of full-time study.

2. What evidence of institutional/program comparability exists (rankings, joint faculty research, publications, etc.)?
NC State has collaborated with Zhejiang Sci-tech through other programs, including the 3+X program, which recruits top ZSTU undergraduate students in their senior year to participate in NC State’s graduate programs. As a leading higher education provider in the field of textile and apparel, the College of Textiles at NC State ranked top 5 in all different ranking systems. Zhejiang Sci-Tech University is a key university in Zhejiang Province, China, with a long tradition of cultivating professionals for the fashion and textile industry in China. ZSTU’s programs in the area of fashion and textile have been ranked among the top five in China.

There are research collaborations between the faculty members of the two programs. Several faculty members from ZSTU, including Dr. Xiaofen Ji (Chair of the Executive Committee for the School of International Education), conducted their visiting scholarship in the College of Textiles at NC State. Another faculty member will be coming in October, 2018 to complete her visiting scholarship at NC State. It is expected that more research collaboration will occur between the faculty at the two programs.

3. What are the areas of mutual interest? Past partnerships?
The degree at ZSTU focuses on the fashion engineering perspective, while the MT program at NC State provides students with an opportunity to gain insights of the U.S. textiles industry from the perspectives of marketing, design and product development, technology, and management.
The mutual interest between the two programs is to develop competitive future leaders for the global fashion and textile industry.

Currently there is a collaboration in the form of 3+X program between the two universities. This partnership has been in place for 5 years now with consistent flow of students from ZSTU to the MT program in the College of Textiles at NC State. The implementation of the proposed joint dual degree program will attract more qualified and prepared students to enroll into the MT program.

4. What are the partner institutional priorities?
Zhejiang Sci-Tech University has a strong focus on engineering, with the coordinated interdisciplinary development of science, engineering, arts, economics, management, law, fine arts, and education. The university boasts 17 schools (teaching & research departments) and one independent college, and a population of over 27,000 full-time students, over 3100 of whom are graduate students.

Zhejiang Sci-Tech University boasts three(3) first-level disciplines to confer doctoral degree and 26 first-level disciplines to confer master’s degree, and is entitled to confer such professional degrees as master of engineering (including 13 categories of master of engineering), master of fine arts, master of business administration, master of applied psychology, master of translation and interpretation, and confer master’s degree to those candidates with same educational level. Zhejiang Sci-Tech University houses over 1,900 teaching and administrative staff, among whom there are over 840 teachers with the professional rank of associate professor and over 240 teachers with the professional rank of professor.

Zhejiang Sci-Tech University has been sticking to the ideology of opening schooling, has established cooperation with over 100 universities and scientific research institutions from over 20 countries and areas, and the education for foreign students is booming.

5. How does this agreement fit with NC State Institutional Mission?
As a comprehensive research university in the land-grant tradition, North Carolina State University is dedicated to excellent teaching, the creation and application of knowledge, and engagement with public and private partners. By uniting the strengths of two globally strong programs, this dual degree program fits the institutional mission of enhancing local and global engagement through focused strategic partnerships. By extending the capacity of the Graduate programs in the Department of Textile and Apparel, Technology and Management to reach beyond the current pool of prospective students, the partnership with ZSTU will bring an additional group of well-prepared students to our master’s program. The inclusion of students from this joint program will bring additional perspectives and diversity to the student body in the Textiles program at NC State. This dual degree program provides an opportunity to offer excellent future leaders to the global community in the fashion industry.

6. How does this agreement fit with the NC State College’s Mission?
The vision for the College of Textiles is to be the global leader in textile innovation: education, research, and service. The partnership with ZSTU through this dual degree program fits nicely
with the college’s mission of “Through innovative educational practices and multi-disciplinary research activities, we provide visionary leadership and collaborative services to the university, State and global communities.”

VI. Administration:

1. How was the proposed dual degree developed? Describe the process by which NC State faculty worked with the partner faculty to plan program content, select courses, and choose mode of delivery.

Dr. Xiaofen Ji (former Associate Dean in the College of Fashion and current Chair of the Executive Committee in the School of International Education at ZSTU) visited the College of Textiles at NC State during the summer of 2016 and got a firsthand acknowledgement of the facility, expertise, and curriculum associated with the graduate programs in the Dept. of Textile and Apparel, Technology and Management as well as in the College of Textiles. An interest was initiated by ZSTU to have a joint dual degree program during Dr. Yingjiao Xu’s visit of the ZSTU campus in the Summer of 2017. Dr. Xu reported this collaboration initiative to the college leadership as well as the Graduate Committee in the Dept. of TATM, and consulted with the Global Partnership Office and the Graduate School at the beginning of the Fall 2017 semester. All responses were supportive. After a series of back and forth communication regarding the curriculum and program operation, the Graduate Committee in the Dept. of TATM finalized the details of this agreement.

2. How will the proposed program be administered? Include detail regarding each partner responsibilities related to administration, academic policy enforcement, logistics, and student recruitment, registration, admissions. Attach organizational chart and recruitment timeline if applicable. (Examples of recruitment materials may be requested when pursuing SACSCOC approval).

ZSTU will recruit students from China. NC State will be collaborating with ZSTU to develop recruitment and promotional materials to be distributed to targeted student population in China. Applicants will be required to apply for and to be accepted for admission first to ZSTU’s graduate program, which is a 3 year program for full time students.

Students enrolled at the ZSTU graduate program will apply for admission to the graduate program at NC State before the end of their first year (Year 1) at ZSTU. Students who meet the MT degree requirement at NC State will pursue the MT degree at NC State in their second year (Year 2). Specifically, for students enrolled in this program, they will be guaranteed to be admitted to the MT degree program if the following conditions are met: 1) obtained a GPA of 3.0 or above in their first year of study at ZSTU; 2) achieved a TOEFL score of 80 or higher; and recommended by the ZSTU’s operation committee for this dual degree program. These students will return to ZSTU at the end of Year 2 to spend the last Year at ZSTU to complete the degree requirement for the Master of Engineering degree at ZSTU. If a student doesn’t perform well while at NC State and fails to get the MT degree, he/she is still eligible to return to ZSTU to complete the degree requirement for the Master of Engineering degree at ZSTU.

The application for the admission to the master’s program at ZSTU will be reviewed by ZSTU faculty chaired by Dr. Jie Xiong (Dean of Graduate School). The application to the MT program
at NC State will be reviewed by the TATM Graduate Admission review committee chaired by the Director of Graduate Program (DGP) for TATM. The DGPs at both programs will be consulted in each partner’s admission review process.

Each spring semester, a meeting of the Dual degree committee will be convened (in person or via teleconference such as Skype) for the purpose of reviewing and planning for enrollment management, curricular oversight and resource management. The graduate program directors will administer the dual degree program at each institution, as it fits very well with the standard admission processes and procedures. The standards, policies, rules and regulations of the respective institutions will remain intact with the same compliance expectations.

<table>
<thead>
<tr>
<th>Dual Degree Administrative Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ZSTU</strong></td>
</tr>
<tr>
<td>Wenxing Chen</td>
</tr>
<tr>
<td>Zhengrong Gao</td>
</tr>
<tr>
<td>Jie Xiong</td>
</tr>
<tr>
<td>Xiang Fu</td>
</tr>
<tr>
<td>Xiaofen Ji</td>
</tr>
<tr>
<td><strong>NC State</strong></td>
</tr>
<tr>
<td>Peter Harries</td>
</tr>
<tr>
<td>David Dixon</td>
</tr>
<tr>
<td>Jon Rust</td>
</tr>
<tr>
<td>Abdel-Fattah Seyam</td>
</tr>
<tr>
<td>Yingjiao Xu</td>
</tr>
</tbody>
</table>

3. **How will tuition and fees be coordinated? Include detail regarding student enrollment and tuition at each partner institution.**

The students admitted into the dual degree program will typically enroll in the first year at ZSTU, the second year at NC State, and the third year at ZSTU. The students will pay full tuition and fees at the school in which they are currently enrolled and in accordance with that school's published tuition and fees policy. Students are responsible for personal expenses, transportation, textbooks and other course materials, and any required educational fees or taxes.

The students in the dual degree program will be flagged as dual degree, so they are not penalized for not meeting the continuous registration requirement while enrolled at ZSTU and not enrolled at NC State. The students must take a sufficient number of credits at one of the schools to be deemed a "full time" student at that school for that semester.

4. **Proposed NC State SIS sub-plan code for designated students participating in dual degree. The sub-plan identifying the dual-degree students must align with the SIS plan code for the NC State degree program (max 10 char)**

To be created by the graduate school when it is approved.
**VII. NC State Policy Disclaimer for this agreement:**

“Students participating in this coordinated dual degree program will be subject to all applicable policies and regulations at all partner institutions, even during semesters enrolled at the partnership institution(s).”

**VIII. Expected Annual Student and Faculty (if applicable) Participation during each year of the agreement:**

ZSTU has the capacity to enroll 30 students annually through this collaboration. A goal for this joint degree program is to recruit 10 out of the 30 students to pursue both degrees. The remaining 20 students will remain at ZSTU for their 2\textsuperscript{nd} and 3\textsuperscript{rd} years to complete the Master of Engineering degree at ZSTU.

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<td>ZSTU</td>
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<td>Faculty exchange</td>
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<td>NC State</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Exchange</td>
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<table>
<thead>
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<th>2021</th>
<th>2022</th>
<th>2023</th>
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<td>ZSTU</td>
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<td></td>
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<tr>
<td>Student enrollment</td>
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<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>NC State</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student enrollment</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

**IX. CURRICULUM DESIGN:**

1. Provide an overview of how the degree requirements for each Institution will be completed as part of this dual arrangement.

The MT program at NC State requires completion of 30 credits. At least 18 credits must be earned at NC State, and no more than 12 credits may be earned at ZSTU. Students that meet the MT degree requirement will receive the Master of Textiles degree at NC State University.

The Master of Engineering program at ZSTU requires completion of 32 credits + thesis. Students who meet the degree requirement for the Master of Engineering at ZSTU will get the Master of Engineering degree from ZSTU and receive the diploma from ZSTU. Up to 12 hours taken at NC State can be transferred to count toward the degree at ZSTU.

2. Provide list of NC State course requirements for degree and equivalency to related courses at Partner Institution. (Attach as semester-by-semester display of course
requirements and provide a list of course requirements and equivalencies for the dual degree program):

The Master of Textiles Degree at NC State requires a minimum of 30 hours of graduate level courses. Per the graduate school guidelines, MT students are allowed to transfer in up to 12 hours of graduate level courses taken at another university. Under this proposed program, the four (4) courses are delivered in English at ZSTU by faculty members at NC State. These four(4) courses are required for all students enrolled in the program.

The 18 hours of courses (6 courses) to be taken at NC State during their 2nd year in the program will be equally distributed between the two semesters, with three courses in each semester. NC State will cover the cost related to the delivering of these courses to the students enrolled in the program via the tuition paid by these students. All these courses are already in existence. There is no need to develop additional new courses just for this dual degree program.

<table>
<thead>
<tr>
<th></th>
<th># of Courses</th>
<th># of Cr hrs</th>
<th>Available courses*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall Semester</td>
<td>3</td>
<td>9</td>
<td>TTM510</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TTM515</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TTM583**</td>
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<td>TT570</td>
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<td>TTM591**</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>TT591**</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>3</td>
<td>9</td>
<td>TTM517</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TTM533</td>
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<td>TT550**</td>
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<td>TT571</td>
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<td></td>
<td></td>
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<td>TT591**</td>
</tr>
</tbody>
</table>

*The MT degree allows students to take other graduate level courses (TT5XX) offered in the college to count toward the degree.

** These courses are also available via Distance Education.
3. Provide list of Partner Institution’s course requirements, analysis of course content, and equivalency to related courses at NC State.

The four courses (12 hours) highlighted are the ones to be counted in the student’s degree at NC State. These courses will be developed and delivered by faculty members from NC State. The NC State faculty will be paid by ZSTU to teach the courses. Travel expenses (transportation, room and board) will be covered by ZSTU. NC State will provide faculty vitae to ZSTU three months in advance for ZSTU’s approval. Courses to be offered by ZSTU faculty are delivered in Chinese. Courses to be offered by NC State faculty are delivered in English. This will help to ensure seamless transition of the students into their 2nd year study at NC State.

<table>
<thead>
<tr>
<th>Course classification</th>
<th>Number</th>
<th>Course name</th>
<th>Class hour / Credits</th>
<th>Semester</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree General courses</td>
<td>FL10012</td>
<td>Oral English</td>
<td>32/1</td>
<td>2</td>
<td>Required course</td>
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<tr>
<td></td>
<td>FL10020</td>
<td>Postgraduate English</td>
<td>54/3</td>
<td>1</td>
<td>Required course</td>
</tr>
<tr>
<td></td>
<td>MS10004</td>
<td>Research on theory and practice of</td>
<td>36/2</td>
<td>1</td>
<td>Required course</td>
</tr>
<tr>
<td></td>
<td>MS10005</td>
<td>Dialectics of nature</td>
<td>18/1</td>
<td>2</td>
<td>Required course</td>
</tr>
<tr>
<td>Degree Core courses</td>
<td>FD11001</td>
<td>Fashion theory and research</td>
<td>48/3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FD11021</td>
<td>Fashion Market Research</td>
<td>48/3</td>
<td>1</td>
<td>NCSU equivalence TTM585</td>
</tr>
<tr>
<td></td>
<td>FD11022</td>
<td>Fashion brand management</td>
<td>48/3</td>
<td>1</td>
<td>NCSU equivalence TTM582</td>
</tr>
<tr>
<td></td>
<td>FD11004</td>
<td>Fashion Company management</td>
<td>32/2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FD11023</td>
<td>Fashion consumer behavior</td>
<td>48/3</td>
<td>2</td>
<td>NCSU equivalence TTM580</td>
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<tr>
<td></td>
<td>FD11024</td>
<td>Global Dynamics in the Textile and Fashion Complex</td>
<td>48/3</td>
<td>2</td>
<td>NCSU equivalence TTM581</td>
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<td>Non-degree courses</td>
<td>SC11002</td>
<td>mathematical statistics</td>
<td>48/3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Others (research and practicum)</td>
<td>SC11027</td>
<td>Engineering psychology theory</td>
<td>48/3</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Academic Seminar /1 Min. of 4 seminar presentations, Min of 8 attendance in seminars
Academic Report /1 Min of 4 attendance
Practical Training Year 1.
Thesis Proposal By the end of 2nd semester in year 1
Thesis Writing and defense 3rd year
4. Describe how and when transfer courses will be evaluated.

Only 12 credit hours from each institution can be transferred to complete program requirement. The evaluation process will be facilitated via course transfer form, in accordance with the universities’ (NC State and ZSTU) policies on transfer credits.

5. If Thesis requirement, provide details (supervision/credit).

5.1 No thesis is required for the MT degree at NC State.
5.2 A thesis is required for the Master of Engineering degree at ZSTU as detailed below:

- Upon entering the program, the student works closely with an adviser to identify a research topic. The proposed thesis research needs to bring new insights to the field of study, testing techniques, or manufacturing techniques, and make theoretical and/or practical contributions to the field.
- The student is to submit a thesis research proposal to the college by the end of their 2nd semester in the program;
- Under the guidance of the adviser, the student independently conducts the research project.
- The student needs to organize the thesis in writing according to the “Graduate Dissertation Standard of Zhejiang Sci-Tech University”.
- Upon completion of the proposed research and thesis writing, approved by the adviser, the student schedules the thesis defense with the graduate school according to the “Regulations of Dissertation Published by Postgraduate Studies at Zhejiang Sci-Tech University”.
- The student can schedule the oral defense in the last semester of their 3rd year of the program. But, upon approval from the adviser and the college, the student can apply to the graduate school at ZSTU to schedule an early defense by following the university’s early defense regulation.
- The student needs present the thesis to and be evaluated by the adviser, the college’s academic committee (assigned by the college), and the graduate school at the oral exam.
- Successful passing of the thesis defense is required to obtain the degree.

6. What is the total percentage of courses taken at Partner Institution?
For the MT degree at NC State, the percentage of courses taken at ZSTU is 40%.

7. What is the total percentage of courses taken at NC State? (At least 50% of hours for graduate programs and at least 25% for undergraduate programs must be taken at NC State)
60% of courses required for the MT degree are taken at NC State. Basically, the entire curriculum will be delivered by NC State faculty, considering there are four courses at ZSTU being taught by NC State faculty members.

8. To be eligible for a bachelor’s degree, a student must have earned at least 30 of the last 45 hours of credit through NC State courses. If this requirement will not be met, please provide justification to explain.
N/A. The dual degrees are at the graduate level.

9. Transfer hours allowed by NC State.
12 hours.
10. Transfer hours allowed by Partner.
12 credit hours

11. Will course credit from Partner Institution count toward NC State GPA calculation? (If yes, explain)
No. Transfer credits will not be included in the calculation of a student's periodic or cumulative grade point average by the transferee school. Grade point averages for both programs are calculated independently by the two schools.

12. Describe other requirements. (residence, comprehensive exams, internships, language, etc.)
No other requirements.

13. Provide list of courses that will be offered totally online and in hybrid format. Indicate the applicable format next to each course.
No.

14. Will NC State courses be offered at an off-campus site either through DE or face-to-face? If so, has the site been approved by SACS?
Only at ZSTU for the 4 transfer courses.

X. ASSESSMENT/MEASURABLE OUTCOMES:

What are the measurable student learning outcomes for this academic arrangement and how will they be assessed? Note: Outcomes for the existing degree must be met in the dual degree arrangement, and a copy of the most recent assessment plan must be attached to all Memorandum of Agreement renewals. Provide any additional outcomes related to the academic collaborate arrangement.
Consistent with the standard curriculum for the MT course and the Department of TATM courses, the standard measures of student learning outcomes will continue in the dual degree program.

XI. FACULTY CREDENTIALS FROM THE PARTNER INSTITUTION:

1. Provide a list of the faculty directly involved in teaching courses as part of this program of study. Attach the CV for each.

   a. Faculty at partner institutions who wish to serve as NC State Graduate Faculty members, advising graduate students and serving on graduate student advisory committees, must be nominated to the Graduate Faculty. Contact the Graduate School for more information. ([https://www.ncsu.edu/grad/handbook/sections/1.3-grad-faculty.html](https://www.ncsu.edu/grad/handbook/sections/1.3-grad-faculty.html) and email gfac-nomination@ncsu.edu)

No new faculty will be hired specifically for the dual degree programs. The standard procedures for hiring and credentialing graduate faculty will continue in the dual degree programs.
XII. INSTITUTIONAL COMMITMENT AND RESOURCES:

NC State University:
1. Provide description of NC State’s commitment to this academic arrangement.
   No additional resources are required for the proposed dual degree program to exist and to be successful. The Department of TATM has committed the necessary resources by using its standard allotment of budget spending, space and human resources/faculty/staff.

2. Provide detail regarding the funding for this arrangement (amount, source, duration).
   NO additional funding is required at NC State to run for the dual degree program. ZSTU will seek funding from their institution to run the program and providing financial support for the eligible students to attend the MT program at NCSU in Year 2.

3. Provide detail regarding facilities and space (amount, source, duration).
   No additional space is required at NC State.

4. Provide detail regarding library resources (amount, source, duration).
   No additional library resources are required.

5. Provide detail regarding equipment required for this arrangement.
   No additional equipment is required at NC State to run the program.

6. Other:
   N/A

Partner Institution:
1. Provide description of Partner’s commitment to this academic arrangement.
   ZSTU has committed the necessary resources by using its standard allotment of budget spending, space and human resources/faculty/staff by agreeing to the attached Memorandum of Agreement.

2. Provide detail regarding the funding for this arrangement (amount, source, duration).
   ZSTU will be responsible for all the necessary expenses for the part of the dual degree program offered at ZSTU campus (including the cost of the 4 courses taught by NC State faculty members at ZSTU), and will set up a scholarship as the financial aid for students going to study at NC State in Year 2. The funding would be sought mainly from the students’ tuition paid to ZSTU.

3. Provide detail regarding facilities and space (amount, source, duration).
   ZSTU will provide the right to the use of such infrastructures as places for the part of the program implemented at ZSTU campus (including classrooms, public computer rooms, libraries, places for hands-on instruction and sports facilities), student dormitories and logistics.
4. Provide detail regarding library resources (amount, source, duration).
Students of the dual degree program will have the same access to the library resources as other ZSTU students.

5. Provide detail regarding equipment required for this arrangement.
N/A

6. Provide detail regarding any institutional policy or practice that would prohibit student participation based on race, gender, ethnicity, or religion.
N/A

7. Other: N/A

XIII. REVIEW SCHEDULE FOR AGREEMENT:

All agreements will be for a period of 5 years, unless otherwise specified. If requesting a renewal, nine months prior to the end date of the agreement the required renewal documentation must arrive at the Graduate School or the Office of Undergraduate Courses and Curricula and Academic Standards. This will provide continuity in the university review process. Upon the scheduled review date, responses to review criteria will be required to be completed and provided to the university review committee. If the agreement will be discontinued, a teach-out plan will be required for those students remaining in the program. Results of the most recent assessment plan must be attached to renewal documents.

As part of this agreement, specify the following:

1. What criteria will be used by the participating NC State College to determine whether the program should continue?
The standard university policy for all other dual degree programs should apply to this proposed degree program.

2. In what year will this agreement be evaluated (if not 5 years from the original effective date)?
In 5 years from the arrival of the first class of students at NC State campus.

XIV. SACSCOC disclaimer to be followed as part of this Agreement:

For agreements with Partner institutions that are not accredited by SACSCOC, the following disclaimer must be included in the Memorandum of Agreement and in any advertised postings by the Partner institution in compliance with SACSCOC procedures related to collaborative academic agreements. The NC State program coordinator for this agreement must monitor the Partner institution’s statements of relationship to ensure conformance with this disclaimer. In addition, neither Member nor Partner institutions may use the SACSCOC logo. Its use is reserved exclusively for the Southern Association of Colleges and Schools Commission on Colleges.
Disclaimer Statement:
“North Carolina State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award Master of Textiles degree. Zhejiang Sci-Tech University is not accredited by the Commission on Colleges and the accreditation of North Carolina State University does not extend to or include Zhejiang Sci-Tech University or its students. Further, although North Carolina State University agrees to accept certain course-work from Zhejiang Sci-Tech University to be applied toward an award from North Carolina State University, that course-work may not be accepted by other colleges or universities in transfer, even if it appears on a transcript from North Carolina State University. The decision to accept course-work in transfer from any institution is made by the institution considering the acceptance of credits and course-work.”

XV. SACSCOC Prospectus

Please see http://www.sacscoc.org/forms/principle/Prospectus-SubstantiveChange.docx regarding SACSCOC prospectus requirements. For procedural guidance, please contact the Graduate School or the Office of Undergraduate Courses and Curricula and Academic Standards.

XVI. This agreement must follow the stipulations listed below to be in compliance with N.C. State and SACS policies:

● The SACSCOC disclaimer is included in this agreement and will be included in any marketing for this dual degree arrangement.
● This agreement requires at least 25% of the credits for an Undergraduate program and 50% for a Graduate program be awarded by N.C. State.
● The SACSCOC logo does not appear on this agreement and will not be used by the N.C. State or the Partner institution.
● The Partner institution will provide timely access to their materials, physical site(s), and personnel in conjunction with accreditation reviews, if requested.
● This agreement will be reviewed in 5 years from the date of final signature.
● The signing of this agreement and any supporting documentation assures compliance with the requirements of this Memorandum of Agreement. Any changes will require approval by the signatories and other approval bodies as applicable.
XVII. General Provisions

1. **Contact Person and Notices.** All notices under this Memorandum of Agreement should be delivered in writing, signed by the party giving notice, to:

<table>
<thead>
<tr>
<th></th>
<th>NC State</th>
<th>Partner Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Jon Rust</td>
<td>Xiaofen Ji</td>
</tr>
<tr>
<td>Title</td>
<td>Interim Associate Dean</td>
<td>Chair of Executive Committee</td>
</tr>
<tr>
<td></td>
<td>College of Textiles</td>
<td>College of International Education</td>
</tr>
<tr>
<td>Office</td>
<td>Room 3409</td>
<td>Room 521</td>
</tr>
<tr>
<td>Address</td>
<td>1020 Main Campus Drive</td>
<td>No. 19 Building of Xiasha Campus</td>
</tr>
<tr>
<td>Phone</td>
<td>919-515-6564</td>
<td>057186843486</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:jon_rust@ncsu.edu">jon_rust@ncsu.edu</a></td>
<td><a href="mailto:xiaofenji@zstu.edu.cn">xiaofenji@zstu.edu.cn</a></td>
</tr>
</tbody>
</table>

2. **Termination of this Agreement.** This agreement may be terminated by either party upon sixty (60) days written notice to the other party. If the agreement is terminated, any participants identified previous to the termination of the agreement will be allowed to complete their programs.

3. **Costs.** Each party shall be responsible for its own costs and expenses in implementing this program.

4. **Transfer.** Neither party may assign, delegate, or otherwise transfer any obligations under this Memorandum of Agreement without the prior written consent of the other party.

5. **Use of Marks.** Neither party shall identify the other in any promotional advertising or other promotional materials or to use the name of either party’s trademarks, service marks, symbols, nicknames, or logos of either party, without the prior written consent of the other party, except to identify that the parties have entered into this Memorandum of Agreement.

6. **Compliance with Applicable Law.** The Partner Institution shall comply will all laws, ordinances, codes, rules, regulations, and licensing requirements that are applicable to the conduct of its business, treatment of personal information, and local agencies having jurisdiction and/or authority.

7. **Severability.** If any provision of this Agreement is held to be invalid or unenforceable for any reason, this Memorandum of Agreement shall remain in full force and effect in accordance with its terms disregarding such unenforceable or invalid provision.

8. **Entire Agreement.** This Memorandum of Agreement contains the entire agreement of the parties and there are no representations, inducements or other provisions other than those expressed herein. All changes, additions or deletions to this Memorandum of Agreement shall be in writing and executed by the authorized representatives of both parties.
Signatures – Memorandum of Agreement
IN WITNESS WHEREOF, the authorized representatives of the parties have executed this agreement on the date(s) indicated below:

The signing of this agreement and any supporting documentation assures compliance with the requirements of this Memorandum of Agreement. Any changes will require approval by the signatories and other approval bodies as applicable.

<table>
<thead>
<tr>
<th>NC State</th>
<th>Zhejiang Sci-Tech University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Peter Harries</td>
<td>Prof. Xiaofen Ji</td>
</tr>
<tr>
<td>Dean, Graduate School</td>
<td>Chair of Executive Committee</td>
</tr>
<tr>
<td></td>
<td>School of International Education</td>
</tr>
<tr>
<td>Date: 9/27/15</td>
<td>Date:</td>
</tr>
<tr>
<td>Dr. Warwick Arden</td>
<td>Prof. Wenxing Chen</td>
</tr>
<tr>
<td>Executive Vice Chancellor and Provost</td>
<td>President</td>
</tr>
<tr>
<td>Date:</td>
<td>Date:</td>
</tr>
</tbody>
</table>
Letter of Support

April 8, 2018

Dear Sir/Madam,

Zhejiang Sci-Tech University is pleased to collaborate with North Carolina State University on the dual Master’s degree program. Students will be admitted first to ZSTU graduate program and apply for admission to the graduate program at NC State at the end of their first year at ZSTU. Qualified applicants will pursue the Master of Textile degree at NC State in their second year. These students will return to ZSTU at the end of the second year to complete the degree requirement for the Master of Engineering degree at ZSTU.

Zhejiang Sci-Tech University is a key university in Zhejiang Province, China known for its tradition and strength in the teaching and research in the field of fashion and textiles. Fashion and textile industry has long been a pillar industry in Zhejiang Province, and will be developed into one of the eight “trillion” industries according to the developmental strategies of the Zhejiang Provincial Government. The dual Master’s degree program is in line with ZSTU’s goal to develop students’ international perspective and expand the international exchange and cooperation and would help to satisfy the need for a growing number of professionals for the further development of fashion and textile industry. On behalf of Zhejiang Sci-Tech University, I hereby confirm that ZSTU will give its full support to the development of the dual Master’s degree program and do everything in its capacity to fulfill its obligations under the program agreement.

I look forward to working with you towards a fruitful collaboration.

Sincerely,

Wenxing Chen
President
Zhejiang Sci-Tech University
August 6, 2018

Peter Harries, Interim Dean
The Graduate School
NC State University
Raleigh, NC 27695

Re: NCSU-ZSTU Dual Degree Partnership

Dear Dr. Harries:

I am writing this letter to provide my strong support to the proposed Dual Degree Partnership between the College of Textiles at NC State and the College of Global Education at the Zhejiang Sci-Tech University (ZSTU). Through the collaboration between the two programs, high quality students recruited from China can accomplish two master’s degrees within three years: a Master of Textiles (MT) degree from NC State and an Academic degree of Master of Engineering in Clothing Design and Engineering (ME) from ZSTU. Students will spend their first year at ZSTU to fulfill some of the degree requirements for the Master of Engineering degree while also taking four courses delivered by NC State faculty members. Students will be enrolled at NC State in their second year to accomplish the degree requirement for MT. In their 3rd year, the students will return to ZSTU campus to complete their ME degree requirement. This program will provide mutual benefits to both programs. For NC State, this partnership provides a great opportunity to recruit high quality and well prepared students to graduate programs in the college.

ZSTU is a key university in the Zhejiang Province of China and is well-known for its research and higher education in the field of fashion and textiles. The university provides great research and talent support to the textile and fashion industry in the area, which is the leading fashion and textile zone in the country. ZSTU has been a long time global partner for the College of Textiles through research and education endeavors. The two universities have an MOU in place to oversee the diverse collaborations between the two universities, including the 3+X programs. The College of Textiles has continuously been receiving 3+X students from ZSTU in the past 5 years.

Several of the faculty members in the college, including myself, have visited ZSTU and were impressed with the research and teaching activities of the university. ZSTU also has sent a group of faculty members to the College of Textiles for short-term visit or long-term research collaborations, including Dr. Xiaofen Ji, the chair of the executive committee of the College of Global Education. Therefore, the faculty of the two programs have a good appreciation of each other’s research expertise, curriculum, and vision and mission statements. I am very positive that this proposed partnership will not only provide opportunity for graduate education, but also can foster and enhance the research collaborations between the two universities.

I would like to provide my full support to this proposed dual degree partnership between the College of Textiles and ZSTU. The College is looking forward to working closely with the graduate school on this dual-degree program. Please let me know if you need further information.

Sincerely,

David Hinks, Ph.D.
Dean