**INITIAL PROGRAM PROPOSAL AND APPROVAL**

Please forward the completed form to tmwoodard@ncat.edu and/or request a meeting to discuss the questions in detail. The Provost will review the proposal and invite the Dean/designee to present at the Deans’ Council/Administrative Council.

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| QUESTIONS | RESPONSES |
| 1. Your name, title, department, college/school, and contact information. | Sherine Obare, PhD  Dean  Joint School of Nanoscience and Nanoengineering  Contact Information: 336-285-2805  Email: soobare@ncat.edu |
| 1. What is the name of your proposed program? | Graduate Certificate in STEM Entrepreneurship |
| 1. How does the program fit within the mission of your unit and college/school? | The Joint School of Nanoscience and Nanoengineering (JSNN) partners with several companies to build research and innovation. All our engineering students are seeking to engage in industry projects that will allow them to gain experience and prepare them for success in the science/engineering/technology workforce. However, there are no programs at the university to prepare our students for entrepreneurship in STEM disciplines. In fact, there are no programs nationally well designed to assist students at the graduate level to learn about the various aspects for success as STEM entrepreneurs. Our students are consistently seeking for opportunities and this is one way for us at JSNN to support the need for students to gain the required skills for their success. |
| 1. How does the program fit within the mission of the institution? | The proposed program fits into the University mission in its alignment with Goal 1 of the Preeminence 2020 Taking the Momentum to 2023, “Excellence in Teaching, Research and Student Success” as well as strategies 1.4, ‘*Cultivate university-wide interdisciplinary collaboration in research application and entrepreneurship innovation to address critical and complex problems*’. It also addresses strategy 1.5, ‘*Strengthen recruitment, preparation, retention, graduation and placement’*. |
| 1. What review and approval process has this program gone through in your unit and College/school? | A college level curriculum committee is currently in place at JSNN to help the Dean in such program discussions and review. |
| 1. What review process has this program undergone with other Colleges/School. The Graduate College, the Educator Preparation Council, Provost, and Vice Provost for Strategic Planning and Institutional Effectiveness? | This was discussed with the Provost, presented to the Academic Council, Discussed with the Dean of the Graduate College, the Dean of the College of Business and Economics and the Interim Director for the Center of Excellence in Entrepreneurship and Innovation. |
| 1. Does this program have additional partnerships? (within your College/school, institution, other institutions in the UNC System, and other institutions) | No |
| 1. Describe the administrative infrastructure that will be needed to support this program? Describe the hierarchy of responsibility. | A program coordinator at JSNN will serve as the administrator of this program. The program coordinator will report to the Assistant Dean for Graduate Education (position to be posted in Fall 2019) and position will begin in May 2020. |
| 1. Does the program have a possible specialized accreditor? What are the options for certifications and/or licensure? | No |
| 1. What degree will students receive when they complete this program? | Graduate Certificate |
| 1. How many hours will students be expected to complete in order to receive the degree? How many of these hours are already offered? How many will need to be developed? How many hours are from a different program? Do any of the courses need a prerequisite? (please attach a list of courses and credit hours) | 18 credit hours  6 credit hours will be from the College of Business and Economics and are already being offered.  6 credit hours are from electives and are already being offered  6 credit hours are new courses and are being developed at JSNN.  None of these courses have a pre-requisite.  Please see Appendix I of this document for the full list. |
| 1. Does the program include experiential learning as a curricular component? If so, describe and address the administrative component that will be required. | Yes, students will be required to complete a project with a science-based company, or a faculty supervised entrepreneurial project. A Part-time instructor will be in charge of this course and will assist in identifying a suitable company and approving a project. |
| 1. What is the proposed start date of the program for student admission? | Fall 2020 |
| 1. What is the criteria to admit students to the program? Will students be allowed to transfer credit? What documents will students need to submit? | Students will be required to hold a bachelor’s degree in a science, technology or engineering discipline.  Interested students will apply to the program by submitting:     1. Transcript (students must have a minimum GPA of 3.0 (on a scale of 4.0) 2. Three (3) letters of recommendation   In addition, students will be required to:   * Complete a certificate plan of study * Enroll in a degree granting graduate program at NC A&T or in a post-baccalaureate program in the Graduate College.   Students who may have taken up to 6 credits in courses similar to what is required will be allowed to use those credits for the certificate program. Students will have to provide the program coordinator with the course syllabi and the transcript indicating that those courses were passed with a grade of B or better. |
| 1. Where on campus will be program be housed? | Joint School of Nanoscience and Nanoengineering (JSNN) |
| 1. Is there a demand for this program? Are there jobs for students who graduate from this program? How many students do you expect to start in the program? Provide evidence from a market analysis. | A formal market analysis has not been conducted for this proposed program. The reason is that we receive several requests from current and past students indicating the need for students in STEM to have experiences in entrepreneurship. In. addition, this program is a direct response to a needed partnership with the Center for Excellence in Business and Entrepreneurship. We anticipate enrolling no less that 15 students in year 1 and to increase enrollment by 305% each year thereafter. |
| 1. Will this program be offered 1) online; 2) off site; 3) weekends only? | No. The program is face-to-face offered on campus during regular business hours. |
| 1. What essential knowledge, skills and dispositions will a student gain upon successful completion of the program? | Students will be gain knowledge in various entrepreneurship skills including:   1. Intellectual property 2. patents 3. invention disclosure 4. Licensing 5. human resource management 6. budget and accounting 7. Business administration |
| 1. Do similar programs exist in the system institutions? List, if any. | No |
| 1. Who will teach the courses? How will it affect their course load and other activity? | A total of six (6) courses are required.  Two (2) courses are already being offered in the College of Business and Economics. Two (2) other courses will be electives, already offered. The remaining two courses will be offered by one part-time instructor at JSNN. |
| 1. Who will serve as program coordinator? | JSNN is in the process of hiring an Assistant Dean for Graduate Education. The Assistant Dean will serve as the Program coordinator for this Graduate Certificate Program and will have a shared Administrative Assistant. The Assistant Dean will also help in the selection of the Part-time instructor of the two courses offered at JSNN. |
| 1. Is special equipment or lab space required for the program? | No |
| 1. For certificates only: Will this be a standalone certificate (students will be able to enroll in the certificate only)? If yes, are you planning to go through the gainful employment regulation? | Yes, this will be a standalone certificate.  Yes |
| 1. For SACSCOC liaison: Does establishing this program constitute a substantive change? | No |

**APPENDIX I**

**Graduate Certificate in Science, Technology, Engineering and Mathematics (STEM) Entrepreneurship**

The Joint School of Nanoscience and Nanoengineering proposes to establish a Graduate Certificate in Science, Technology, Engineering and Mathematics (STEM) Entrepreneurship degree program at North Carolina Agricultural and Technical State University. The program is designed for:

* Students who have completed a STEM major (or are in their final year of completing a STEM major) and want to excel in today’s marketplace.
* Students interested in establishing a start-up company focused on STEM innovations.

The program builds on the skills and knowledge gained in a student’s undergraduate studies to prepare them for a broad range of fields and careers. Interested students will apply to the program by submitting:

1. Transcript (students must have a minimum GPA of 3.0 (on a scale of 4.0)

2. Three (3) letters of recommendation

In addition, students will be required to:

* + Complete a certificate plan of study
  + Enroll in a degree granting graduate program at NC A&T or in a post-baccalaureate program in the Graduate College.

Students will be eligible to earn the Graduate Certificate in STEM Entrepreneurship by:

* Completing the required courses at JSNN and COBE.
* In addition, students will be required to complete a project with a science-based company, or a faculty supervised entrepreneurial project. The coordinator will assist in identifying a suitable company and approving a project.
* Students must earn a grade of B or better in each course.
* All requirements must be completed in 3 years from the date of matriculation into the program.

The courses required for the Graduate Certificate in STEM Entrepreneurship are shown in Table 1.

