

Annual Report of the Graduate School 2009-2010

1.0 PROGRAMS: GRADUATE SCHOOL ACTIVITIES

1.1 **Professional Development of Graduate Students: Preparing Future Leaders.**

Preparing the Professoriate: The Graduate School organized 12 workshops for PTP fellows and mentors, with a total attendance of 207. Twenty-two completed the program. ***Certificate of Accomplishment in Teaching and Fundamentals in Teaching:*** We designed and facilitated 72 teaching workshops/events offered in person, online, and in hybrid formats with a total of 678 participants. ***Responsible Conduct of Research:*** PFL organized 6 RCR seminars with 353 in attendance. ***Career Skills:*** We delivered 26 seminars, 1,383 participants. We organized and delivered four sessions in the newly established Graduate Leadership Development Series, 100 participants. We also worked with CSLEPS to deliver the highly successful four-hour workshop “Enhancing your Leadership by Understanding your Personality Preferences,” 20 participants.

1.2 **Professional Science Master’s (PSM) Degree Programs.** The Graduate School established 6 new PSM programs, 3 at NC State and 3 at other universities in the UNC system. Planning and feasibility study continues on 24 other programs. To encourage PSM programs across the UNC system, we created the first UNC PSM focus group, initiated the NCPEN (NC Professional Education Network), held PSM guidance meetings with faculty and deans from 3 universities, hosted a state-wide PSM videoconference, and developed an assessment plan for PSM programs. An NSF grant of \$700,000 was awarded to the Graduate School’s PSM director for advancing PSM education in the UNC system.

1.3 **Support for Postdoctoral Scholars.** The Office of Postdoctoral Affairs organized 24 professional development programs for postdocs with overall attendance of 335. We initiated the Certificate in Teaching Techniques (CITT) program in Fall 2009. So far, 53 postdocs registered

in CITT and 23 have completed the requirements. Another program created this year was “Beyond the Bench: Alternative Career Paths in Science” through a grant from the North Carolina Career Development Association. Nine workshops were delivered in this series with a total of 97 attendees. In addition, the office director now delivers information on resources for postdocs at all New Employee Orientation events.

1.4 **New Graduate Programs.** The Graduate School initiated the approval process for 3 programs, 8 graduate certificates, 2 new articulation agreements, and the discontinuation of 5 degrees. We implemented **8 programs:** Integrated Manufacturing Systems (add DE); Instructional Technology (add DE); Geospatial Information Science and Technology (new MR DE); Industrial Engineering (add DE); Parks, Recreation & Tourism Management (add DE); Computer Networking (add DE); Environmental Assessment (new MR DE); and Science Education (add DE); and **4 graduate certificates:** Counselor Education; Consumer Textiles Product Design & Development; Renewable Electric Energy Systems; and Technology Entrepreneurship & Commercialization.

1.5 **Partnerships with International Entities.** We participated in the development of a proposal to establish an off-campus site in the city of Songdo, South Korea, located within the Incheon Free Economic Zone (IFEZ), at the Global University Campus complex. Programs to be offered are: Biomathematics, Civil and Environmental Engineering, Design, and Textiles. Formal agreements for two dual-degree doctoral programs are in process but have not yet been submitted: Crop Science and the Universidade Federal de Vicosa in Brazil and Industrial Systems Engineering and the University of Rostock in Germany.

1.6 **Growing Enrollment.** The Graduate School processed about 13,000 applications, a total increase of 12.5% over last year, but because of innovative process changes, we achieved that

with fewer staff and faster turnaround. In addition, we managed the dispersal of approximately \$2 million in 27 different fellowship/grant programs for 351 graduate students representing virtually every department on campus, including 65 Provost Fellowships and 15 University Graduate Research Fellowships. We also awarded \$61,000 in matching funds to 31 graduate programs to enhance their recruiting. We visited over 13 recruiting fairs, including one in Thailand. Ten Royal Thai Scholars have applied to NC State, with 6 (as of May) admitted.

1.7 Graduate Program Evaluation. The Graduate School managed the external reviews of 9 programs (Animal Science, Genetics, Forestry, Immunology, Economics, Computer Science, Computer Networking, Horticultural Science, and Entomology) and conducted post-review meetings for 5 programs (Animal Science, Poultry Science, Genetics, Forestry, and Immunology). We made an important contribution to the submission of the university's midterm report to SACS, a report that focuses on outcomes assessment of academic programs. Outcomes assessment of graduate programs continued, with 36 programs submitting biennial reports.

1.8 Publicizing the Graduate School. The Graduate School held its second annual Graduate Education Week in conjunction with other universities in the state. We initiated an e-newsletter sent to students, DGPs, and graduate secretaries and launched Facebook and Twitter sites. We also produced our annual Fact Sheet and Report on Graduate Education at NC State.

1.9 Improved Interface with Graduate Programs. The Graduate School worked with the Administrative Board of the Graduate School to clarify policies, including the responsibility of the outside representative on PhD committees, the transfer policy for courses from foreign institutions, late and retroactive withdrawal procedures, and a regulation to keep international students from staying past the completion of their programs. The Graduate School also cooperated with the Office of Technology Transfer (OTT) to modify the procedures for

providing guidance on patent agreements by making OTT the source for that guidance. In addition, we uncovered and corrected 13 sections of the Administrative Handbook and initiated 8 Handbook revisions to accommodate normal rule changes.

1.10 Operations and Fiscal Affairs. In addition to its core functions of managing graduate admissions and student record keeping, providing critical information technology and business processing services, and furnishing other forms of support for the Graduate School and Research and Graduate Studies, the OFA group engaged in new initiatives: a business-process solution to administer NSF's requirement for training in responsible conduct of research, the implementation of applicant self-service functions to achieve greater efficiencies, a new version of the Electronic Thesis and Dissertation submission and review software, custom application software to manage the statutory reporting required of research centers and institutes, and new versions of admissions and enrollment management reporting capabilities.

2.0 COMPACT PLAN: MAJOR INITIATIVES Because of university budget difficulties, no funds were dispersed for this third year of the Graduate School's 3-year compact plan.

3.0 DIVERSITY: INITIATIVES AND PROGRESS

3.1 Cultivating High Achieving Motivated Professionals and Scholars (CHAMPS). In collaboration with the Office of Diversity and Inclusion and UNCF, the Graduate School developed and implemented a model recruitment program for prospective graduate students who are from underrepresented groups. A total of 22 students, 3 UNCF representatives, and 7 faculty/staff from Claflin, Xavier, and Fisk Universities visited NC State on November 12-13, 2009 to learn about graduate educational opportunities. As a result of the success of the 2009 pilot program, UNCF has agreed to continue this collaboration and will provide NC State with a matching grant of **\$17,000** to help cover the costs of the 2010 CHAMPS program.

3.2 **NSF AGEP.** The Graduate School continued to manage the AGEP program: (a) 4 students in the Academic Year Research Experience, (b) 11 in the Summer Undergraduate Research Experience, (c) 9 in the BRIDGE program. We continued to recruit at multiple institutions across Puerto Rico. Eight Puerto Rican students who were introduced to NC State either directly through AGEP or through AGEP partnerships are currently enrolled in graduate school at NC State; 6 others are AGEP SRE participants.

3.3 **The North Carolina Alliance to Create Opportunity Through Education.** OPT-ED, also funded by AGEP, had 894 participants from 115 educational institutions.

3.4 **NIH Initiative for Maximizing Student Diversity (IMSD).** During this year we (a) recruited 10 undergraduates and 1 graduate student and retained all 30 students, (b) selected 7 additional faculty mentors to work with IMSD students, (c) organized and facilitated research lab visits for IMSD students to help with the selection process of identifying a faculty mentor and research lab, (d) organized 5 professional development seminars to bring researchers and academicians from across the country to speak at NC State, (e) submitted and were awarded an NIH supplement grant.

3.5 **Other Support for Recruiting and Retaining Minority Students.** At Visit NC State Day, 31 students participated from 16 colleges and universities, visiting 18 graduate programs. We developed new MOU's with Spelman College and Fayetteville State University with the aim of recruiting outstanding graduate students. We drafted a proposed American Indian Institute or Certificate Program to recruit American Indian students into graduate or certificate programs.

4.0 FUND-RAISING

The Graduate School held fall and spring meetings of its Board of Advisors. Donations to the 3 funds associated with the Graduate School totaled \$60,014 so far this fiscal year. The majority

of these funds were returned directly to the Preparing Future Leaders program.

5.0 ADMINISTRATION: STAFF CHANGES AND ACHIEVEMENTS

5.1 **Staff Changes.** As a result of RIFs, retirements, and resignations, the Graduate School lost 5 employees in 2009-10. Four new employees were hired (Lian Lynch, Assistant Registrar; Kamon Hester, International Admissions; Carolyn Krystoff, Residency; and Katie Lester, Graduate School Support Plan) and several staff members were reassigned new job responsibilities (Dare Cook and Jennifer Crumb became College Liaisons, and Lindsay Gentile became Director of Admissions).

5.2 **Assistant Dean Lisbeth Borbye** published a book, *Out of the Comfort Zone: New Ways to Teach, Learn, and Assess Essential Professional Skills*, and 2 articles. She gave presentations at 2 national meetings. She submitted 2 grant proposals and is co-PI on an NSF grant awarded in May 2010 for \$700,000 to advance Professional Science Master's education in the UNC system.

5.3 **Associate Dean Michael Carter** had 3 scholarly publications and gave 6 presentations, including 2 keynote addresses—one at the conference on Excellence in Postgraduate Education at King Saud University—and 7 workshops. He also was co-PI on 2 NSF grants, “Multimodal Science: Graphic Enhanced Elementary Science,” and “Collaborative Research: CPATH II: Incorporating Communication Outcomes into the Computer Science Curriculum.”

5.4 **Interim Assistant Dean George Hodge** taught 2 graduate, 3 undergraduate courses, and 2 undergraduate labs. He mentored the research of 2 PhD students and 1 MS student. He also served as the chair for 4 non-thesis students and advisor for 30 undergraduate students in Textile Supply Chain Operations. He attended professional workshops and conferences.

5.5 **Dean Duane Larick** is co-PI on 2 new GAANN (Scientific Computation, Nanoscale Electronic and Energy Materials) and 1 new USDA (Transdisciplinary Training Program in

Functional Foods) grants. He chaired the award committee for the Institute of Food Technologists' Stephens Change Award; he gave a presentation on interdisciplinary graduate programs at the Council of Southern Graduate Schools meeting in Savannah and is currently president of the NC Conference of Graduate Schools.

5.6 **Assistant Dean Rick Liston** presented a paper at the Oracle PeopleSoft Conference in San Antonio.

5.7 **Associate Dean Rebeca Ruffy** presented 5 workshops or seminars on Responsible Conduct of Research and 3 on working effectively with a thesis or dissertation committee. She also gave 3 invited presentations, including "How to Develop and Implement a Successful RCR Program at a University" (at Appalachian State University) and "How to Stand Out in your Field" (a keynote at a departmental honors banquet).

5.8 **Assistant Dean David Shafer** was awarded a 2-year administrative supplement to the IMSD grant from NIH and 3 GAANN grants that will provide fellowships to 14 doctoral students. He has continued as PI for the \$10 million AGEP/OPT-ED Program and as co-PI for \$2.1 million grant from NIH-IMSD. He served Phi Kappa Phi on both local and national levels. He was invited to give presentations at a variety of venues, including UNC-Pembroke, Meredith College, and UNC-Wilmington.

5.9 **Interim Assistant Dean Dan Willits** published a paper and taught Transport Phenomena and 4 sections of Research Methods for graduate students.

6.0 RECOMMENDATIONS AND CONCERNS FOR THE FUTURE

6.1 **Funding for Graduate Education** – There are four primary areas of funding concern including: stipends, expansion of the GSSP, funding for our "plus" programs, and development of new graduate programs. The Graduate School will continue to provide leadership in the

development of interdisciplinary training grants and identifying creative mechanisms to increase funding for the GSSP. We will continue to expand our development initiatives, taking full advantage of the groundwork laid with the Advisory Board; at the same time, we must continue to make fellowships a primary focus of the Development Office! Finally, we will continue to work closely with the Provost's office to ensure accurate budgeting for proposed new programs.

6.2 Graduate Enrollment - Improving Graduate Student Recruiting and Increasing

Diversity – Our goal needs to be to continue to be to grow our graduate programs, especially our doctoral programs, in alignment with our enrollment plan. The Graduate School can help support enrollment growth in general by providing leadership for the growth of the GSSP and continuing efforts such as Website development, recruiting proposals, and recruiting materials. Additionally, we will continue to expand our efforts to help ensure a diverse graduate student population.

6.3 Enhancing Graduate Student Professional Development, Administrative Services

and Improving Efficiency in the Graduate School. Given the current budget situation, we must focus on providing the graduate community enhanced services performed as efficiently as possible. Examples of administrative enhancements/efficiencies include our continued educational efforts related to PeopleSoft Student Information System and development of expedited admissions processes. At the same time, we must find a way to continue our focus on those programs that the Graduate School is uniquely positioned to provide including the Preparing Future Leaders program, development of Professional Science Masters and program review/quality improvement. These are the programs that will enhance the quality of graduate education at NC State and thus continue to improve our national reputation as a leader in graduate education.

Additional Material

CONTRIBUTIONS TO 5 FOCUS AREAS

Producing leaders for the state, nation, and the world: the Preparing Future Leaders program (1.1), the Professional Science Master's degrees (1.2), support for postdoctoral scholars (1.3), the various new degree programs (1.4), partnerships with international entities (1.5), recruiting to bring the best students to NC State (1.6), the many diversity initiatives (3.1)

Creating educational innovation: the Professional Science Master's degrees (1.2), the various new degree programs (1.4), partnerships with international universities (1.5), evaluation of graduate programs (1.7), improved interface with graduate programs (1.9).

Improving health and well-being: approved program in Parks, Recreation, and Tourism Management and certificate in Counselor Education (1.4).

Fueling economic development: the Professional Development Seminar series (1.1), the Professional Science Master's degrees (1.2), new programs approved (1.4), partnerships with international universities (1.5), recruiting to bring the best students to NC State (1.6), the many diversity initiatives designed to enroll underrepresented minority students (3.1)

Driving innovation in energy and the environment: approved new program in Environmental Assessment and certificate program in Renewable Electric Energy Systems (1.4).