

Annual Report - 2011-2012

WAKE FOREST UNIVERSITY GRADUATE SCHOOL OF ARTS AND SCIENCES



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GRADUATE SCHOOL *of*
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2011-2012

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I. INTRODUCTION

The Graduate School of Arts and Sciences is integral to the operation of the University as we join all sectors and therefore help make the whole greater than the sum of its parts. Our focus is on discovery and the generation of knowledge in order to fulfill our mission of preparing *the next generation of leading teachers, scholars and practioners in their fields*. Complementing the foundational knowledge and professional skills provided by the other schools or colleges, the Graduate School has the special role of equipping students with the advanced knowledge and special skills needed to advance discovery and secure leadership in the knowledge-based economy of the 21st century.

Among our chief accomplishments during the past year were:

- Achieving excellent program outcomes as exemplified by the receipt of ~120 student and ~20 faculty awards in relation to their graduate-program activities, high levels of student satisfaction, and very good degree-completion and placement metrics.
- Improving the organization of and opportunities for faculty participation in our biomedical PhD programs by instituting the “track” system with its common recruiting, first-year curricula, and mechanisms for awarding financial aid.
- Increasing our net revenue and using these funds to improve the student experience; program operations; and the teaching, research and service activities of the University’s other schools and colleges.
- Supporting postdoctoral fellows with professional development programs and other forms of service.
- Substantially increasing the percent of under-represented USA minorities applying to and expected to enroll in our programs in the Fall 2012.
- Continuing to develop innovative new programs that are tailored to equip students with the tools needed to solve important problems and improve societal well-being.

During the 2011-12 year, the Graduate School was directed by Dean Lorna G. Moore and her two Associate Deans, Brad Jones and Dwayne Godwin, whose roles were to oversee Graduate School publicity and recruiting activities common to all our programs (Jones) and professional development activities for all graduate students and postdoctoral fellows on all WFU campuses (Godwin). We are assisted by a highly-capable staff whose operations on the Reynolda campus are overseen by Ms. Debbie Deheck and, on the Bowman Gray campus, by Ms. Susan Pierce. This has been the final of Dean Moore’s five-year appointment at WFU as she announced her decision in the Fall to return to her scholarly activities and be a Visiting Scholar at the University of Cambridge (UK) in the Fall 2012. Associate Deans Jones and Godwin will become Interim Graduate School Deans for the 2012-13 year while the University’s senior leadership decides on the administrative structure of the Graduate School.

II. HIGHLIGHTS OF GRADUATE SCHOOL DEGREE, JOINT DEGREE OR CERTIFICATE PROGRAMS, AND STUDENT / POSTDOCTORAL ASSOCIATIONS FOR THE 2011-2012 YEAR

A. Degree Programs

Students and faculty in the BIOCHEMISTRY AND MOLECULAR BIOLOGY PhD program had an active year, attending professional meetings organized by the Biochemical Society, the American Association for Cancer

Research, the WFU Graduate School's Graduate Student/Postdoc Research Day, and Biotechnology or Venture Capital Investment groups. The students authored a total of five (5) publications in peer-review journals, including four (4) as first authors and one that was selected as the "paper of the week" by the Journal of Biochemistry; and received awards from the Graduate School's Cowgill, Camillo Artom, Cheung, and Alumni Student Travel programs. This spring, a number of students and faculty in the program moved to Wake Forest One Biotech Place, a newly-renovated building in downtown Winston Salem that will be a focus of biotechnology research in the Triad region.

Completing its third year, the BIOETHICS program continues to attract high-quality applicants, enrich the educational experience, and produce motivated and successful alumni. Twenty-one (21) continuing students -- including those in its MA, dual degree, and certificate programs -- will be joined in the fall 2012 semester by the largest and most highly-qualified group of new students since the program's inaugural year. In 2011-2012, seven (7) MA in and the first Certificate student graduated, bringing the total number of alumni to 16. These alumni are now pursuing professional education, mostly in medicine and law, or engaging their professions in new and expanding ways. For example, an alumnus has been hired as a Research Assistant with the Presidential Commission for the Study of Bioethical Issues and has published a first-author, peer-reviewed article. Students benefitted from major conferences and other events sponsored or co-sponsored by the Center for Bioethics, Health & Society (CBHS); for example, a monthly "Tea Time" was held at which faculty, students, and speakers engage with current issues and one another in an informal setting. Funded in part by the CBHS, six (6) students attended the national meeting of the American Society for Bioethics and Humanities, at which an alumna presented. Program faculty published one (1) edited book, 16 chapters or other contributions to books, and 34 peer-reviewed articles while also giving more than 66 presentations. Students and faculty advisors developed innovative thesis projects (*e.g.*, utilizing dance to express, explore, and initiate discussion about end-of-life issues). A new Bachelor's/MA in Bioethics dual-degree program awaits approval by the Board of Trustees.

BIOLOGY faculty served as research mentors to 33 PhD and five (5) MS students in its graduate program and, together with faculty from Winston-Salem State University, formed the core group for supporting a NIH training program for undergraduate minority students in neuroscience. Biology faculty and students published 58 papers, made 64 presentations at national meetings, and received \$1.61 M in external funding. Renovation of the foyer and teaching labs was undertaken and the Graduate School increased the number of TAs to accommodate continued enrollment increases. Biology graduate students received national awards including a Doctoral Dissertation Improvement grant from the NSF (Jacquelyn Grace) and a competitive fellowship from the NSF's National Evolutionary Synthesis Center (Daniel Griffith). Research performed by Aaron Corcoran and William Conner was highlighted on national television. Nine (9) students won awards for their presentations at meetings and three (3) won travel awards from professional societies. Biology faculty organized conferences on biology and neuroscience topics; and provided valuable service as editorial board members, manuscript and grant reviewers.

The BIOMEDICAL ENGINEERING program completed its 10th year in the joint Virginia Tech-WFU School of Biomedical Engineering and Sciences (SBES). In 2011-2012, SBES housed 11 MS and 79 PhD students, with four (4) MS and 30 PhD students being enrolled at WFU. Nine (9) new students are expected to join the WFU contingent in the Fall 2012. One (1) PhD and three (3) MS WFU students graduated this year. Students won NSF fellowships, were a finalist for the Department of Defense SMART Scholarship, received presentation awards at the Human Movement Science Research Symposium and at the Advancement of Automotive Medicine Annual Meeting, two (2) WFU Graduate School Alumni Student Travel Awards, and one (1) selected for participation in the 2nd Annual North Carolina Graduate Education Day event in the state capital.

The CANCER BIOLOGY program, part of the Molecular and Cellular Biosciences (MCB) Track, provides multidisciplinary and translational training for PhD students with a specific cancer focus. The graduate program

has been supported by a recently renewed NIH (NCI) training grant, held for the past 12 years, and which has aided in attracting excellent students and achieving a high degree-completion rate. Five (5) students graduated in 2011-2012 and are continuing their careers as postdoctoral fellows at the NIH, Duke University, Scripps Research Institute, and other institutions. Facilitated by a two-session grant-writing workshop, trainees have been successful in obtaining extramural funding from the Department of Defense, the American Foundation for Aging Research (Glaxo Smith Kline), and other agencies. The department has strengthened its postdoctoral training program by raising the number of fellows and establishing a fellowship mirrored after the NIH's K99/R00 program to allow postdoctoral fellows to transition to independence.

The CHEMISTRY program is proud of its seven (7) PhD and one (1) MS graduates, a group which included the recipient of this year's Gordon A. Melson Outstanding Doctoral Student Award, Julie Reisz. We are looking forward to working with 30 currently-enrolled and nine (9) incoming students in the coming year. In calendar year 2011, Chemistry faculty published 41 peer-reviewed manuscripts and made 56 presentations, 25 and 23 of which included graduate students as co-authors respectively. Research efforts were supported by \$1.7 M in extramural funding in the year ending June 2011, including \$924,006 in 11 new awards. Faculty taught 65 graduate classes, with graduate enrollments increasing by 22%. Students and faculty continued to benefit from ready access to state-of-the-art instrumentation, small class sizes for more personalized instruction, and direct interaction with faculty mentors. During the period 2008-2010, tuition revenue from extramural faculty grants along with other Graduate School resources allowed for modest increases in stipends for Teaching Assistants (TAs) and provisioning of student-health insurance. The graduate program is exploring opportunities for expanding professional internships, workshops for encouraging graduate students to apply for external fellowships, and developing new 5-year BS/MS programs. Chemistry faculty were active as mentors in the Graduate School's Summer Fellows program and in publicizing chemistry's achievements as part of the 2011 "International Year of Chemistry". Special events included a staged reading of the play "Oxygen" and hosting the 24th Annual International Workshop on "Recent Developments in Electronic Structure Theory". The Department was proud to recognize that several of its 15 tenured/tenure-track faculty members and nine (9) senior lecturers, visiting faculty members, teacher-scholar postdoctoral fellows, or adjunct faculty members provided key administrative service roles – including Mark Welker who served as Interim Provost for the 2011-2012 academic year, Brad Jones who served as Graduate School Associate Dean for 2011-2012 and was appointed Interim Graduate School Dean for 2012-2013, and Rebecca Alexander who was reappointed as the co-director of the URECA program for 2012-2015.

The CLINICAL AND POPULATION TRANSLATIONAL SCIENCES MS program (CPTS) focuses on providing advanced training to WFU Medical School faculty and staff. This past year seven (7) students graduated and 14 new MS students entered, including three (3) who matriculated as the first fellows in the newly-established Cardiovascular Imaging Training Program directed by W. Gregory Hundley, MD. Incoming students include five (5) junior faculty and a staff member from the WFU School of Medicine. In the past year students were authors on over 20 peer-reviewed manuscripts, being lead authors on approximately 10. Career development grants were obtained by two (2) students. The Division of Public Health Sciences, which garners approximately \$75 M in external funding annually, provides an outstanding environment for the CPTS Program. During the academic year, Division-based instructors were first authors on about 30 publications and co-authors on nearly 100 others. Our primary goal in the coming year is to maintain program excellence in the face of financial challenges in the health care and research sectors.

The COMMUNICATION program continued its trend of assigning TAs to a diverse range of courses (*e.g.*, Public Speaking, Relational Communication, Empirical Research Methods, and Debate) as a means for providing valuable learning opportunities for graduate students and meeting demands emanating from expanding enrollments. An outstanding class of 12 students matriculated in the Fall 2011, 10 of whom successfully defended their theses and the remaining two (2) will be defending in the Fall. Three (3) students from the 2010-

2011 class completed their theses in August or December 2011. The Fall 2012 incoming class consists of 15 students, thus continuing our trend of utilizing the partial tuition-scholarship initiative to expand our program. Graduate students made 14 presentations at national or regional conventions, gave six (6) other presentations, were first authors on one (1) peer-reviewed publication in a top-tier journal, co-authored three (3) papers currently under review, and received five (5) awards including an Emmy Award. One (1) selected for participation in the 2nd Annual North Carolina Graduate Education Day event in the state capital. In addition to support from the WFU Graduate School's Alumni Student Travel Awards program, departmental indirect cost funds provided approximately \$4,000 to graduate students for research- and travel-related needs.

COMPUTER SCIENCE students received nationally-competitive summer 2011 internships at Pacific Northwest Labs; Lawrence Livermore Research Lab; Wake Forest Health Sciences; and the Center for Innovation, Ednovio, and B/E Aerospace. Six (6) new students enrolled in the Fall 2011, with one (1) supported as a Research Assistantship (RA) and five (5) as TAs in the Fall and with three (3) supported as RAs and three (3) as TAs in the Spring. The TAs provided academic services to 437 undergraduates during the academic year. Ten (10) students were awarded MS degrees in May 2012 with five (5) using the thesis option, four (4) the project option, and one (1) the course-only option. Two (2) additional students are expected to graduate in August 2012. Enrollment for Fall 2012 continues with three (3) of the seven (7) open slots currently filled. The new Computer Science chair, Professor Pete Santiago, led an effort to introduce a PhD program in Biomedical Informatics that has been approved by the Graduate Faculty and, once begun, has the potential to bring more graduate students into the Computer Science program. Computer Science faculty and students had nine (9) publications or national presentations. One of its students, Michael Crouse, was named one of the nation's top inventors by *Inventor Digest* and received the Gordon Melson Best Master's Student Award for 2011-2012.

In the COUNSELING program, 15 rising second-year students traveled to the WFU Flow House in Vienna, Austria to take Sam Gladding's "The Vienna Theorists" course in May 2011. In conjunction with Wake Forest Baptist Medical Center's Memory Assessment Clinic, a counseling program for individuals and families affected by Alzheimer's Disease and other dementias was initiated under the leadership of faculty members Ed Shaw and Phil Clarke. Nine (9) faculty, students, and alumni made presentations at the NC Counseling Association's 2012 Annual Conference on Professional Counseling and Advocacy. The Pi Alpha Chapter of Chi Sigma Iota inducted 14 first-year students into its international honor society. Under the leadership of Graduate Program Director Professor Donna Henderson, the department undertook several new initiatives, including the introduction of online MA programs in clinical mental health counseling and school counseling that are designed to be completed on a part-time basis over a three-year period and expected to begin in August 2012. An online MA in Human Services program is also expected to begin in the Fall 2012. The Counseling department hosted continuing education seminars in the Spring for more than 50 students and professionals in the community. Professor Sam Gladding was featured as one of 18 counselors in the March 2012 issue of *Counseling Today* concerning the future of the counseling profession.

Faculty and students in the DOCUMENTARY FILM program are active in the Creativity and Human Rights Initiative, which is intended to promote the production of stories about artists, writers, musicians, and others who use creativity in reaction to oppression and persecution. This effort builds on the momentum established by the release of its recent film, *The Last Flight of Petr Ginz*, which has been screened in 41 countries and at the United Nations. The Holocaust and the United Nations Outreach Programme has produced a full-color, 30-page study guide that will be available in seven (7) languages and distributed to 63 countries. The State Department has also distributed the film to its embassies and consulates worldwide. Students have been active in the production of their own films, with *Come on Down and Pick Me Up* (by Nick Corrao and Jon Bougher) being screened at 10 different film festivals and licensed by the Documentary Film Channel, and two (2) students receiving awards at the WFU Graduate School's Graduate Student/Postdoc Research Day. One (1) student received a Hearst and two (2) received Richter scholarship awards. Together with students, faculty have begun

production on another film with local roots and broad implications for human rights, tentatively entitled *Lennie and Pearl: Living in the Overlap*, and made three (3) academic conference presentations, one (1) festival panel presentation, and had two (2) manuscripts accepted for publication.

During the 2011-2012 academic year, the EDUCATION program graduated 25 members of the 2010-2011 class, with all beginning their teaching in K-12 schools in North Carolina, three (3) other states, and one (1) foreign country. The 24 members of the 2011-2012 class entered the program in June 2011, with nine (9) being supported by a NSF WINS grant. Four (4) mathematics education students presented at the NC Council of Teachers of Mathematics Conference and six (6) science education students presented at the North Carolina Science Teachers' Association meeting. Students also attended conferences held by the Foreign Language Association of North Carolina, the North Carolina Council for the Social Studies, the North Carolina English Teachers Association, the National Council of Teachers of English and attended a problem-based learning workshop in Dublin, Ireland, and the national NSF Noyce Conference in Washington, DC. All 24 completed their student teaching during the spring semester at nine (9) K-12 schools, and will receive the NC Teaching license in August 2012. The program sponsored a spring seminar that included a viewing and discussion of the film *American Teacher*. An outstanding 2012-2013 cohort was admitted in April, whose average GPA percentile and GPA scores were 3.58 and 64 respectively, and will begin the program in June. Program faculty gave 32 conference presentations, and published eight (8) journal articles, seven (7) book chapters, and three (3) books.

During the fall 2011, the ENGLISH program sponsored graduate forums on applying to PhD programs and on thesis writing. Two (2) students presented papers at national conferences and two (2) received awards to attend the International Medieval Congress in Michigan in May. Ms. Rebecca Baker won the Drake Award for the department's Outstanding Graduate Student. Of its 27 students, three (3) graduated in May 2012 with three (3) more planning to do so in August. A strong class has been admitted for the Fall 2012, comprising 13 of a total of 35 applicants and whose average GRE verbal score was 622 and undergraduate GPA 3.4. The program's highest award, a Graduate Assistantship with Departmental Fellowship, has been awarded to Ms. Hillary McDonald and two (2) others offered Graduate Assistantships (GAs) to work in the Writing Center. The Graduate Committee convened in the Spring 2012 to discuss possible modifications in the objectives, shape, and requirements of its MA program and will meet in the Fall 2012 to develop recommendations for the department. Partly inspired by a recent report on masters programs in English, this re-evaluation is timely and will be pursued further as part of the department's internal and external reviews in 2012-2013.

The HEALTH AND EXERCISE SCIENCE program continues to be a leader in research focused on advancing our understanding of health and the prevention/treatment of chronic disease or physical disability across the lifespan. It is a broadly collaborative program, having research or educational partnerships with over 20 WFU Reynolda or Bowman Gray campus departments or clinical programs. The HES department supports the education and professional training of 14 MS students in its two-year program. Students presented their research at regional and national meetings, and the HES faculty conducted semi-annual reviews of all TAs in order to enhance their teaching effectiveness. The department underwent internal and external reviews, as part of now a 10-yr review cycle, during which several changes to the program were suggested (including expansion of its graduate program) and are currently under consideration. Collectively, the HES faculty were authors or coauthors on 36 peer-reviewed articles; presented their research at regional, national, and international conferences; and submitted 19 proposals to federal agencies requesting over \$4.74 M, of which 18 were approved for a total of more than \$2.04 M. The faculty also engaged in new initiatives, providing leadership roles in the WFU Translational Science Center on the Reynolda Campus and the new Integrative Physiology and Pharmacology Track on the Bowman Gray campus. Community outreach was provided via involvement in large clinical trials involving behavioral interventions aimed at improving physical activity and/or weight loss; research partnerships with continuing care retirement communities; service on editorial boards,

University and national committees; and conduct of the Healthy Exercise and Lifestyle Programs that serves over 200 WFU faculty, staff or other Winston-Salem residents.

The INTEGRATIVE PHYSIOLOGY AND PHARMACOLOGY (IPP) track graduated six (6) PhD and two (2) MS students in the 2011-2012 academic year. Under the leadership of Track Director Dr. Allyn Howlett, an inaugural class of four (4) students entered the program in the Fall 2011 and were joined by one (1) student who transferred from another Ph.D. program to bring the number of current graduate students to 18. Five (5) students passed their comprehensive examinations, and four (4) have successfully defended their dissertation proposals and advanced to candidacy. IPP students have been very productive, having published 22 peer-reviewed publications in highly reputable journals, submitted 48 abstracts to professional meetings, and being active participants in national and international professional research organizations (*e.g.*, American Association of Cancer Research, American Society of Pharmacology and Experimental Therapeutics [ASPET], American Physiological Society, International Cannabinoid Research Society, and the Research Society for Alcohol [RSA]). Students received four (4) WFU Graduate School Alumni and four (4) professional research society travel awards to present their work at national meetings, and made over 40 poster or oral presentations. Best poster awards earned by students included the prestigious RSA Enoch Gordis Student Research Award, the ASPET Behavioral Pharmacology division 1st place award, the NC Tissue Engineering and Regenerative Medicine Society 1st place award, the American Chemical Society-Syngenta conference 2nd place award, the WFIRM Research Day 1st place award, and three (3) runners-up awards at the WFU Graduate School's Graduate Student/Postdoc Research Day. Two (2) IPP students successfully competed for individual NIH (F32) National Research Service Fellowships, a highly regarded achievement given that less than 10% of the submissions are funded and one (1) earned a Quebec Urological Association Training Scholarship and an American Urological Association Foundation Research Scholar Fellowship. Two (2) IPP students are officers in the U.S. Army. One (1) IPP student participated in the WFU team that won 4th place in the Annual WFU Biotechnology Case Competition and six (6) participated in teaching activities as lecturers or tutors at neighboring academic institutions. IPP students engaged in many service activities, including Graduate Student Association and Brain Awareness Council events; WFU Graduate School's Diversity Day, other recruitment activities, and new student orientation; and events sponsored by the Komen Race for the Cure, Kernersville Cares for Kids, Special Olympics, Alpha Sigma Phi, American Heart Association Walk, and the Health Effectiveness Council. Of particular note, an IPP student represented the WFU Graduate School as the Student Ambassador for the Office of Research Integrity's Quest for Research Excellence Conference.

The new INTERPRETING AND TRANSLATION STUDIES program prepares professionals for meeting the communication challenges of today's increasingly multi-cultural society. Its three (3) specialty areas are Interpreting and Translation Studies, which prepares interpreters and translators to work in the growing language industry with special emphasis on healthcare delivery; Intercultural Services in Healthcare, which is the first such specialization in the U.S. and prepares its graduates for managerial positions in culture-sensitive healthcare delivery areas; and the Teaching of Interpreting, which prepares graduates to be instructors in community or college-level interpreter training programs. The program welcomed a new faculty member, Diego Burgos, and its first six (6) students last fall, three (3) of whom graduated with MAs in the Interpreting and Translation Studies area and one (1) in the Intercultural Services in Healthcare area. Two (2) first-generation students will continue their studies in the Fall 2012 in the Teaching of Interpreting and Interpreting Studies area. The program co-hosted the Annual Conference of the Carolina Association of Translators and Interpreters (CATI) at the Benson Center in April 2012, which was attended by over 120 language professionals and students. Three (3) MA students presented research papers on Military Interpreting, Video Remote Interpreting, and Mental Health Interpreting. Recruitment for the coming year was strong, with 25 submitted applications, 15 admissions and nine (9) new MA students anticipated. The program eagerly anticipates the arrival of a new faculty member in interpreting studies, Tamara Cabrera from the University of Granada, Spain. The Interpreting and Translation

Studies program presently focuses on the Spanish/English language combination but future plans include the exploration of adding other languages, with Arabic and Mandarin (Chinese) being the two most popular options.

The interdisciplinary MASTER OF ARTS IN LIBERAL STUDIES graduated 18 students this past year, bringing the total number of degree recipients to 248 since the program's inception in 1986. A total of 24 students were enrolled at the end of the 2011-2012 academic year. Based on recommendations from the 2010 Program Review, a revamped MALS program was proposed and approved by the Graduate Faculty in 2011-12. The new model contains strong linkages with four core contributing departments (Communication, English, History, and Political Science), two intellectual concentrations (American Cultural Studies, Global Studies), and will accommodate both full-time and part-time students. New MALS applicants will be required to take the GRE, meet the normal requirements for Graduate School admission, and have the opportunity to qualify for tuition scholarships. A marketing campaign was launched in January 2012 for recruiting MALS students for the Fall 2012 term by mailing newly-designed brochures and posters to colleges and universities throughout the eastern U.S., redesigning its website, advertising on WFDD, and hosting an open house at the new WFU Porter B. Byrum Welcome Center. Reflecting the revamped program, a proposal was submitted to and approved by the Graduate Faculty for a change in the degree name from "Master of Arts in Liberal Studies" to "Master of Arts" in April 2012.

The Fall enrollment of 37 full-time students in the MATHEMATICS program was the largest in the program's history, creating space and advising challenges. The incoming class of 20 students contained 12 women, bringing the proportion of women in the program to 62%, and three (3) under-represented minority students. The Department's orientation program will be modified next year to meet the needs of the expanding diversity among our graduate students. Among the 17 students continuing in the Fall 2011, 10 graduated in May, four (4) are finishing up theses this summer, one (1) dropped out in January, and two (2) plan to graduate in December. Among 16 recent graduates, a greater proportion than usual (81%) took the thesis option; 10 will enter graduate programs in mathematics or statistics in the Fall 2012 at George Washington University, Penn State University, Tufts University, University of Alabama-Birmingham, UNC-Greensboro, UNC-Chapel Hill, University of South Carolina, and University of Tennessee; one (1) student has a job as an actuary in Winston-Salem at AON; one (1) student is teaching high school; and plans remain uncertain for four (4). In the Fall 2011 incoming class, 10 were supported as TAs; among second-year students, nine (9) served as TAs, one (1) worked in the Institute for Public Engagement, one (1) received a full-tuition scholarship, two (2) were RAs, and the remainder had partial tuition scholarships with many working in the Math Center on an hourly basis. There were 33 applications for admission for 2012-13, 10 being from China, with six (6) TAs and three (3) partial tuition scholarships being awarded to date.

The MICROBIOLOGY AND IMMUNOLOGY program, part of the MCB track, welcomed eight (8) new doctoral students in 2011-2012 who joined 11 existing students. Students presented at national and international meetings in England, France, Ireland, Italy, and Mexico with assistance from WFU Graduate School's Alumni Student Travel Awards and departmental sources. The Department maintains a high level of productivity with students contributing to 11 publications. Students received numerous accolades including being selected as a finalist for an Emerging Infectious Disease fellowship at the CDC. Four (4) students graduated with PhDs in 2011-2012. The department achieved a successful renewal for years 20-25 of its NIH T32 training grant. The faculty provided distinguished service on NIH study sections and on the Recombinant-DNA Advisory Council (which oversees all gene therapy, including exotic vaccine trials, in the United States). Dr. Ed Swords received the WFU School of Medicine Outstanding Basic Science Faculty Award.

MOLECULAR AND CELLULAR BIOSCIENCES (MCB-Track 4) admitted its first cohort of 24 highly talented and strongly motivated students in the Fall 2011 for what has proven to be a banner year. All 24 successfully completed a challenging and dynamic academic experience, with each taking three (3) new core curriculum

courses and three (3) discipline-specific electives selected from 16 offerings, all the while spending their afternoons (and evenings/weekends) completing three (3) research rotations. The students are now transitioning from “undifferentiated” 1st-years to well-prepared biomedical researchers entering a mentored laboratory and specialized program for the completion of their doctoral degree. For the coming year -- under the continuing leadership of Track Director Dr. Roy Hantgan, Recruiting Committee Chair Dr. Purnima Dubey, and MCB Administrative Assistant Ms. Lisa Canada -- an outstanding applicant pool was recruited, some 250 interviewed, and 14 of the best and brightest admitted for 2012-2013. Cognizant of the funding challenges in these difficult economic times, MCB elected to reduce the size of the incoming class to be sure we can provide the best research opportunities for our students. Appreciation is extended to the Curriculum Committee, chaired by Dr. Jason Grayson, for devising a comprehensive educational program that melds the fundamentals of our disciplines with the deep insights needed for our students to succeed in their independent careers and as life-long learners. Looking forward to August 2012, the new MCB class will enter state-of-the-art classrooms and study spaces on the first floor of Wake Forest One BioTech Place where our students and faculty will interact in the sun-filled atrium designed to promote the free exchange of ideas. Close interaction will be maintained with colleagues located on other WFU campuses via shuttle vans and electronic linkages, and intellectually through shared research interests so as to maintain our collective commitment to education, innovation and discovery.

The MOLECULAR GENETICS AND GENOMICS (MOGN) PhD program forms part of the MCB track, with its 15 students being mentored by 76 faculty from ten (10) basic science and fifteen (15) clinical departments on the Bowman Gray campus and four (4) basic science departments on the Reynolda campus. One (1) student graduated with the PhD and one (1) with the MS in 2011-12. Our PhD graduate, an underrepresented minority, is continuing his training as a postdoctoral fellow at St. Jude Children’s Research Hospital in Memphis, TN. MOGN students received WFU Graduate School’s Alumni Student Travel Awards, a Research Scholarship from the North American Burn Society, Travel Awards from the Wake Forest Institute for Regenerative Medicine, and a Fellow’s Career Enrichment Award from the Armed Forces Institute for Regenerative Medicine. An advanced student also received the Grand Prize in the poster completion at the 10th Annual Charlotte Biotechnology Conference.

The MOLECULAR MEDICINE AND TRANSLATIONAL SCIENCE (MMTS) program houses students entering primarily through the MCB but also the IPP tracks. There are currently 25 students in its MS and PhD programs, including one (1) MD/PhD student and three (3) MD residents, who are mentored by 74 full faculty, seven (7) associate faculty, and 20 affiliate faculty from 17 basic science and nine (9) clinical departments on the Bowman Gray Campus and two (2) basic science departments on the Reynolda campus. Among the inaugural group of 24 students in the 2011-2012 MCB track, eight (8) will enter the MMTS program at the end of their first year. Two (2) students completed the requirements for PhD candidacy during the 2011-2012 academic year, six (6) successfully defended their dissertations, five (5) graduated in May, and one (1) will graduate in August. One (1) PhD student received the Lucy Robbins Fellowship Award for cancer research; seven (7) made presentations at 32 national, international or regional meetings; and 10 contributed to 18 publications, eight (8) of which as first authors. Program accolades included two (2) students who were recipients of NIH/DOD funding; one (1) student who received multiple Orthopedic grants; eight (8) who received research awards at the Surgical Sciences Research Day, the WFU Graduate Student/Postdoc Research Day, WFU School of Business, and WFU MACHE Health Equity Bowl; multiple travel awards from FASEB, the Society for Neuroscience, the St. Jude National Graduate Student Symposium (NGSS) Award, and WFU Graduate School’s Alumni Student Travel Awards; and one (1) who was a finalist for the ORAU 2011 Lindau Nobel Laureate award. Four (4) MMTS students gave oral presentations, were media representatives or student chairs at Orthopedic Research Society, NGSS, NC Tissue Engineering and Regenerative Medicine Society, Dietary Bioactive Components, and Experimental Biology conferences. One (1) placed first in the oral presentation competition at Georgia Institute of Technology’s Graduate Technical Symposium, and one (1) won 1st prize for Orthopaedic Research and Education. Numerous students served as student representatives on graduate program committees; as lab mentors; lab seminar hosts;

on social coordinating committees; and as WFIRM retreat publishing team leaders, ambassadors and liaisons. Two (2) students were elected as officers of the WFU Black Graduate Student Association. A faculty member, Dr. Kevin High, received the WFU School of Medicine Teaching Excellence Award and the Reidar Wallin Faculty Teaching award in Molecular Medicine and Translational Sciences. Also, students participated in outreach activities as volunteers to Habitat for Humanity and elementary school science fairs, as Ambassadors for NC DNA Day, and as Team Captain for Big Brothers Big Sisters.

MOLECULAR PATHOLOGY, also a program within the MCB track, saw its students continue to excel in the categories of awards, presentations, and publications. The program was ranked 12th nationally by Academic AnalyticsTM based on four categories of productivity (grants, publications, citations and awards). Eight (8) students gave a total of 12 oral or poster presentations at regional, national, or international scientific meetings aided by the receipt of Graduate School or extramural travel awards, and 11 contributed to the publication of 25 articles in peer-review journals that included high-profile publications in *Nature* and the *Journal of Clinical Investigation* on the role of microRNA33 in lipid metabolism. Four (4) were awarded PhDs at May's graduation. Caleb Lord and Kelly Ethun were recipients of the Lawrence L. Rudel Most Outstanding Graduate Student Award in Molecular Pathology based on a set of objective criteria including productivity in publications, research presentations, grant writing, and participation in programmatic activities. Another student, Fitriya Dewi, DVM, won the Women's Health Research Day Poster Award, and Mingxia Liu and Caleb Lord, obtained American Heart Association predoctoral fellowships. Three (3) Molecular Pathology students supported by the Integrative Lipid Sciences, Inflammation, and Chronic Diseases T-32 training program are organizing the 2nd annual Lipid Sciences Mini-Symposium, featuring presentations from nationally known scientists from Stanford and Duke Universities. The Molecular Pathology faculty continue to provide national leadership as members of journal editorial boards and of boards of directors for national meetings.

The NEUROBIOLOGY AND ANATOMY PhD program saw Fumi Katsuki receive a WFU Graduate School Alumni Student Travel Award to help support a trip to the 8th IBRO World Congress in Florence, Italy (July 2011). Leigh Nattkemper and Xin Zhou received travel awards sponsored by Fine Science Tools to attend the annual Society for Neuroscience meeting.

The NEUROSCIENCE PROGRAM has successfully completed its first year as the new fully integrated Neuroscience (NEUR) track, comprising the former Neuroscience, Neurobiology and Anatomy, and neuroscience-oriented Physiology & Pharmacology students. Under the leadership of the Track Director Dr. Ron Oppenheim and with the administrative assistance of Ms. Carla Sharpe, the Recruiting Committee chaired by David C. S. Roberts acquired 103 applications and successfully enrolled a class of six (6) PhD students and one (1) MD/PhD for Fall 2011. In the past year, Neuroscience students actively participated in lectures, conferences, and generated numerous posters and papers. Of particular note, one (1) was nominated for attending the ORAU Lindau Nobel Laureate meeting, one (1) received the Mary A. Bell Poster Award, one (1) was renewed for the Michael D. Hayre Fellowship in Public Outreach, six (6) submitted NIH NRSA Predoctoral proposals, two (2) received awards at the 12th Annual WFU Graduate Student/Postdoc Research Day, two (2) received WFU Graduate School's Alumni Student Travel Awards, and nine (9) students attended the 2011 annual meeting of the Society for Neuroscience in Washington, DC. One (1) received an American Psychological Association (APA) Dissertation Research Award, four (4) currently hold NRSA Predoctoral Fellowships, and multiple students are supported by NIDA, NIAA, Sensory, and T32 NIH training grants. Six (6) students graduated in 2011-2012. The Neuroscience Program continues to attract and accept top quality applicants seeking to further their graduate education in a state-of-the-art, collaborative program that spans virtually all areas of modern neuroscience -- including molecular, developmental and behavioral neurobiology, cognitive, and computational neuroscience -- and houses some 93 faculty located in 20 academic or clinical departments on the WFU Bowman Gray or Reynolda campuses.

PHYSICS students won a prestigious NSF graduate research fellowship (Jeremy Ward), a NSF grant to study in Singapore (Katelyn Goetz), and best or runners-up poster awards as the WFU Graduate School's Graduate Student/Postdoc Research Day (Joel Grim, Peter Diemer). Faculty and students published 59 articles in prestigious journals, with graduate students being authors on 40 of these; gave dozens of presentations at conferences; and received two (2) patents, several license agreements, two (2) provisional patents, and an invention disclosure. Six (6) students graduated in 2011-2012 and will move on to outstanding postdoc positions or jobs at the Max-Planck Institute in Göttingen (Dutta), the University of Pennsylvania (Ding), University of Taiwan (Bates), and Mathworks (Xu). Physics faculty continue to attract a high level of external research funding, receiving over \$2.78 M in new awards this year from agencies such as the NSF, NIH, the National Nuclear Security Agency, the Melinda and William Gates Foundation and the NC Biotechnology Center. The faculty received further distinction with the renewal of WFU School of Medicine's Inventor of the Year award (Carroll), a NIH MERIT award (Kim-Shapiro), a Ranlet and Frank Bell Jr. Fellowship (Thonhauser), Endowed Faculty Award (Jurchescu), Wake Forest Fellow (Guthold), and a Kavli Institute for Theoretical Physics Scholar Award (Thonhauser). Dr. Kim-Shapiro is heading the new Translational Science Center, and Dr. Williams is an Associate Director in the Renewable Energy Research Center. Several faculty members organized conferences (Drs. Guthold, Holzwarth, Jurchescu, Kim-Shapiro, Thonhauser, and Williams), including the international 24th Annual Workshop on Recent Developments in Electronic Structure that took place at Wake Forest University.

The PSYCHOLOGY program continues to advance its goal of increasing its receipt of extramural grants, with its faculty having 10 funded grants and being PIs or co-PIs on \$1.9 M of submitted proposals. Large numbers of students continue to apply to the program in keeping with its reputation as one of the best general MA programs in the country. Our first year class of 13 students included two (2) African-Americans and three (3) Asian or Asian-American students. The faculty published 36 articles or book chapters, 13 of which were co-authored with current and/or former graduate or undergraduate students. Highlights of the year included Dr. Furr's receipt of the WFU Faculty Research Excellence Award and Dr. Pratt winning the Wake Forest College Teaching Award. Psychology faculty served as executive or associate editors for *Developmental Psychology*, *International Journal of Psychophysiology*, *Journal of Cross-Cultural Psychology*, *Journal of Personality and Social Psychology*, *Journal of Research in Personality*, and *Psychophysiology*; and on approximately 27 different University committees, including the chair of the Reynolda campus Institutional Review Board. New faculty hires are anticipated to be in the area of self-regulation research and to reflect the department's deep commitment to increasing diversity.

The RELIGION program graduated eight (8) MA students in the Spring 2012, with equal numbers completing the thesis and course-intensive options. Three (3) students will continue in the program and will be joined by eight (8) new students in the Fall 2012. Several program improvements were implemented, including adding the course-intensive option and raising the number of credit hours required for graduation from 30 to 36 beginning Fall 2012; this structure better meets our student's educational and career goals and is more in line with comparable programs nationally. An increase in the number of applicants for Fall 2012 occurred which bodes well for the future of the program.

B. Joint Degree Programs

Fourteen (14) students are currently in the MD/PhD program, including two (2) new students in the Fall 2012 that are coming from the University of Memphis and the University of Pennsylvania. During the 2011-2012 academic year, three (3) students defended their dissertations. One (1) MD/PhD student graduated in May and matched in a neurosurgery residency at the University of Pennsylvania. Six (6) students made presentations at 12 regional or national meetings and seven (7) contributed to 18 publications, five (5) of which as first authors. Awards to three (3) students included a 2nd place Medical Student Research Day award, an Award of Excellence for student leadership for the Consortium of Academic Health Centers for Integrative Medicine, and as members

on a team that won the best conceptualization award at the WFU Biotechnology Competition. Two (2) students were honored as recipients of the Albert Schweitzer Fellowship and elected as junior members to the Alpha Omega Alpha Medical Honor Society, two (2) students were awarded NIH NRSAs for Predoctoral Fellows (F30), two (2) received LEAPS into Integrative Medicine Micro grants from the American Medical Student Association, and one (1) student successfully competed for the American Society for Virology Travel Award. Numerous students continued involvement in outreach and in-service activities by aiding the Brain Awareness Council with web communications, aiding in the Delivering Equal Access to Care Clinic and the medical mission to Peru, membership in "The Ultrasounds" an all-male medical student *a cappella* group, and organizing a class-wide volunteer day to serve lunch to the homeless. The MD/PhD program continues to be the recipient of the Louis Argenta Scholars Program aided by the generous support of a \$2 M gift from the Department of Plastic Surgery. Each year a new award is given to a MD/PhD student that provides their stipend and research-related support for their PhD period of study. This year, Elaine Shing became the newest Louis Argenta Scholar, joining the other current recipients -- Sandy An, Mitchell Ladd and John Wren -- in this prestigious program.

Three (3) JD/MA BIOETHICS students competed as members of interdisciplinary teams in the first annual Health Equity Bowl sponsored by the Maya Angelou Center for Health Equity. Four (4) new students joined the JD/MA in Bioethics dual degree program in 2011-2012, with our second student planning to graduate in summer 2012.

The MA COUNSELING/MDIV program graduated two (2) students this year. Both graduates have found employment and are pursuing licensure as Licensed Professional Counselors in North Carolina.

The MA IN RELIGION/JD program does not currently have any students enrolled.

The PhD/MBA program began in 2000 as the nation's first and has since graduated 11 students within the desired PhD-program duration (5 yr). Two (2) students are currently in the program, having entered upon completion of their discipline-related coursework, with three (3) more students planning to enter in the Fall, thus bringing enrollment to five (5) for the 2012-2013 year. PhD/MBA alumni are pursuing careers in the pharmaceutical and biomedical device industries as well as in traditional academic settings. The PhD/MBA program fulfills an important role in training the next generation of biomedical innovators. Program growth is anticipated in conjunction with the newly approved Certificate in Science Management program and as PhD students increasingly seek careers in industry, government or technology management.

C. Certificate programs

The first Graduate Certificate in BIOETHICS student graduated in the Spring 2012. Specializations in Clinical Bioethics and Biomedical Research Ethics were approved, adding to the general Graduate Certificate in Bioethics program, and have attracted new students for the Fall 2012.

The MEDIEVAL STUDIES certificate program graduated its second student in August 2011. Two (2) students plan to enter the program in the Fall 2012.

The certificate in SCIENCE MANAGEMENT program was launched at an information session attended by Reynolda and Bowman Gray graduate students and postdoctoral fellows. This year, the program cleared two key regulatory hurdles by fulfilling Department of Education and Southern Association of Colleges and Schools requirements, and devising a marketing plan. A website and application process has been established and we anticipate launching the program in Fall 2012. Other programs will also be encouraged to use the certificate as a component for developing professional masters programs.

The STRUCTURAL COMPUTATIONAL BIOPHYSICS certificate program continued its interdisciplinary discussion group and expanded its focus with an education talk by Jed Macosko from Physics on the BioBook, a talk by a

Biochemistry graduate student and training grant awardee Laura Dilion, and with research talks by Biochemistry and Chemistry faculty, Todd Lowther and Uli Bierbach respectively. No students graduated or are currently enrolled, but several have expressed interest and contemplate enrolling in the Fall.

D. Graduate Student and Postdoctoral Fellow Associations

The BLACK GRADUATE STUDENT ASSOCIATION (BGSA) increased its activities tremendously in the 2011-2012 academic year under the leadership of its Chair, Ayana Martin. The year began with several “Meet and Greet” mixers to get to know students and faculty from underrepresented groups in the various graduate and professional programs, and was followed by a Pumpkin Patch Carving Contest in Old Salem; Bowling and Rollerskate Nights; collaborative social mixers with Black Graduate and Professional organizations from Duke University, NC State University, NC Central University, and UNC Chapel Hill; and cultural cooking classes in partnership with the Student Wellness Center. Opportunities for community service included participation at the WFU Graduate School’s Diversity Day and the MCB Open House, a “Paint the Town Red” party that raised \$200 for the American Heart Association and a day of house-building with the local Habitat for Humanity. Lastly, an award of \$1000 was received to create an educational seminar for underrepresented K-12 students to encourage them to enroll in higher education institutions and to pursue their passions.

The BRAIN AWARENESS COUNCIL (BAC) involved approximately 80 WFU graduate students, medical students, undergraduates, postdoctoral fellows, faculty and staff. Chaired by Liz Staniforth Aston, a 10-person leadership team organized monthly visits to six (6) K-12 schools and 750 students. Eight (8) separate events, attended collectively by 1500 persons, were held at other locales including SciWorks, the Children’s Museum, One BioTech Place, and Salem College during Brain Awareness Week in March. Two (2) other outreach programs were continued; namely, “Neuroscience and a Movie” in which a movie portraying a neurological disorder was shown every other month followed by a question-and-answer session and making a “Lending Library” available to area middle- and high-school teachers for specified periods of time. We also improved our website, created outlets on social network sites, and assisted other organizations such as the Western NC Chapter of the Society for Neuroscience and the “Forget Me Not Project” with their outreach events. For the coming year, we plan to continue the same outreach programs and to work with interim Graduate School Dean Godwin on creating a graduate level course for Public Engagement and Outreach.

In 2011-2012, the CHINESE GRADUATE STUDENT ASSOCIATION (CGSA) provided free pick-up services and welcome parties for newcomers, traditional Chinese New Year and Moon Festival celebrations, the second annual WFU CGSA basketball competition, and the first annual WFU CGSA badminton competition. These events helped to promote a spirit of unity and to help newcomers with finding apartments, purchasing vehicles, meeting other students or faculty, and with interacting with persons in the Winston-Salem community. Encouraged by last year’s success, we continued the basketball competition and invited the UNCG Chinese basketball team to this event. In response to requests, we organized the first badminton competition in October - November 2011. With our own website (<http://page.renren.com/600931523>) and Facebook page (<http://www.facebook.com/groups/wfucssa/>), the CGSA hopes to expand our ability to communicate within and outside the Chinese community in the coming year.

The GRADUATE STUDENT ASSOCIATION (GSA) hosted two (2) Happy Hours in each of the Fall and Spring terms for Reynolda and Bowman Gray graduate students at which students enjoyed discount drink specials, pizza, foosball, pool, darts and music at Recreation Billiards in downtown Winston-Salem. These events were organized by the Social Co-Chairs Dejan Maglic and Peter Alexander, and the Executive Co-Chairs Sarah Maveety and Dan Stovall. The GSA also sponsored an Ice Cream Social in August for all incoming graduate students and a fundraiser for local food banks. This mock celebrity, red-carpet dance was spear-headed by the Volunteer and Community Co-Chair, Crystal Redfern. In January, Crystal Redfern worked with Forsyth County Schools to place

graduate students in various K-12 schools to act as science fair judges. In April, Executive Co-Chairs Dan Stovall and Sarah Maveety organized a well-received GSA event at which Dr. Adam Ruben, a practicing research scientist and comedian, presented a comedy show on the Reynolda campus for all graduate students. The GSA was involved in representing graduate student events in the WFU School of Medicine's Gray Matter yearbook, with Phil Smaldino and Social Co-Chair Peter Alexander being instrumental in this process, and with Dan Stovall's and Sarah Maveety's membership on the WFU Graduate Council. The GSA also participated in several recruitment activities for the MCB Track, with Executive Co-Chair Dan Stovall making multiple poster or oral presentations about graduate student life at Wake Forest. Dan Stovall presented the GSA's Graduate Faculty Excellence Award to Dr. David C. S. Roberts at our Hooding & Awards Ceremony in May 2012.

The POSTDOCTORAL ASSOCIATION (PDA) serves all postdocs on all WFU campuses. Its mission is to foster a sense of community and provide post-docs representation at the campus and university level. Starting in the Spring 2011, the PDA was led by executive board members Mesia Moore Steed and Susan Mitroka (co-chairs), Amanda Cox (secretary), and Eric Tucker (treasurer). Board members are key advocates for postdoctoral concerns and play a critical role in organizing and hosting PDA events throughout the year. During the 2011-2012 year the PDA hosted sessions on opportunities for developing teaching skills led by staff from the Wake Forest Teaching and Learning Center, as well as on issues relating to work life balance with staff from the Student Wellness Center. Identifying a desire among PDA members for further teaching training, the PDA worked with the Teaching and Learning Center to facilitate a book/discussion group specifically for PDA members. The group met with Dr. Andrew Engel over six (6) sessions to discuss challenges faced by new teachers and to gain feedback on teaching techniques. The PDA celebrated National Postdoc Appreciation Day in September and its members served on the selection committee for the Excellence in Mentoring Award, as instructors for Grad 713-714, and as presenters and judges at Graduate Student/Postdoc Research Day.

III. OVERALL STRENGTHS AND WEAKNESSES OF THE GRADUATE SCHOOL IN TEACHING, RESEARCH AND SERVICE

A. Overall strengths

- Innovative degree, joint-degree, and certificate programs that tap the depth of faculty expertise, generate new knowledge, advance faculty careers, and provide substantive preparation for students to become the next generation of teachers, scholars, and innovators.
- Strong demand and highly-competitive admission.
- Numerous national awards and achievements received by students, faculty and programs.
- High levels of student satisfaction with graduate programs and Graduate School operations.
- Very good program completion and outcomes.
- Faculty commitment as illustrated by participation in our programs and Graduate School activities.
- Strong support provided to the University and broader community via graduate-student assistance with teaching undergraduates, faculty research, and community-service activities.
- Strong financial support for our students and programs as illustrated by the high proportion of students receiving full or partial tuition scholarships; PhD student-stipends have now reached nationally-competitive levels in all programs; substantial numbers of master's students receiving stipends; having an endowed fellowship for the MD/PhD program; and providing Graduate School funding for student awards, recruitment, and other activities.
- Support for the development of the whole person as illustrated by our common student and post-doc Responsible Conduct of Research (RCR) program and other activities.

B. Overall weaknesses

- Below desired levels of graduate student and faculty diversity.
- A tendency for the Graduate School to be seen as a part of the College or of the Medical School, and a consequent lack of faculty and administrative support for and visibility of the Graduate School.
- Limited areas for PhD training.
- Limited linkage of instructional technologies between campuses.
- Limited fundraising assistance from the Advancement/Development Offices.
- Lack of comprehensive mechanisms for tracking student career success.

IV. SCHOOL'S GOALS AND OBJECTIVES

A. Key Goals for 2011-2012 in Relation to the WFU Strategic Plan

Our graduate programs are integral to WFU's first strategic goal of *building excellent programs of nationally-recognized value*, as not only do graduate students provide significant help to faculty in carrying out their teaching and research responsibilities but graduate programs are also vital for attracting top faculty and a crucible for stimulating the ideas required for solving future problems. WFU's second goal of *opening doors for educational opportunity* requires the activities of the Graduate School for training the next generation of leading teachers, scholars and practioners in their fields. WFU's third plank -- *developing the whole person* -- involves access to the range of education, research, and service activities present in all schools or colleges. The Graduate School plays an important role in this and the fourth element of the WFU Strategic Plan, *promoting connections between the liberal arts and the professions*, as we link all the schools and colleges of the University. Indeed it is the Graduate School that makes us a "University".

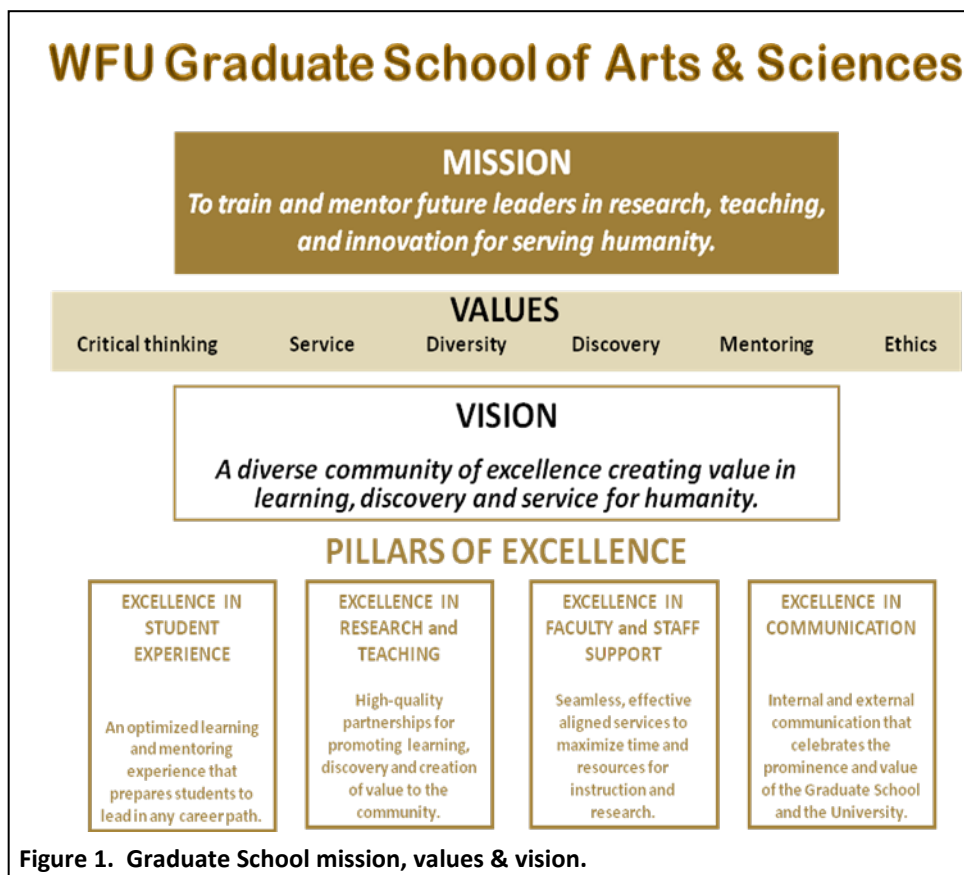


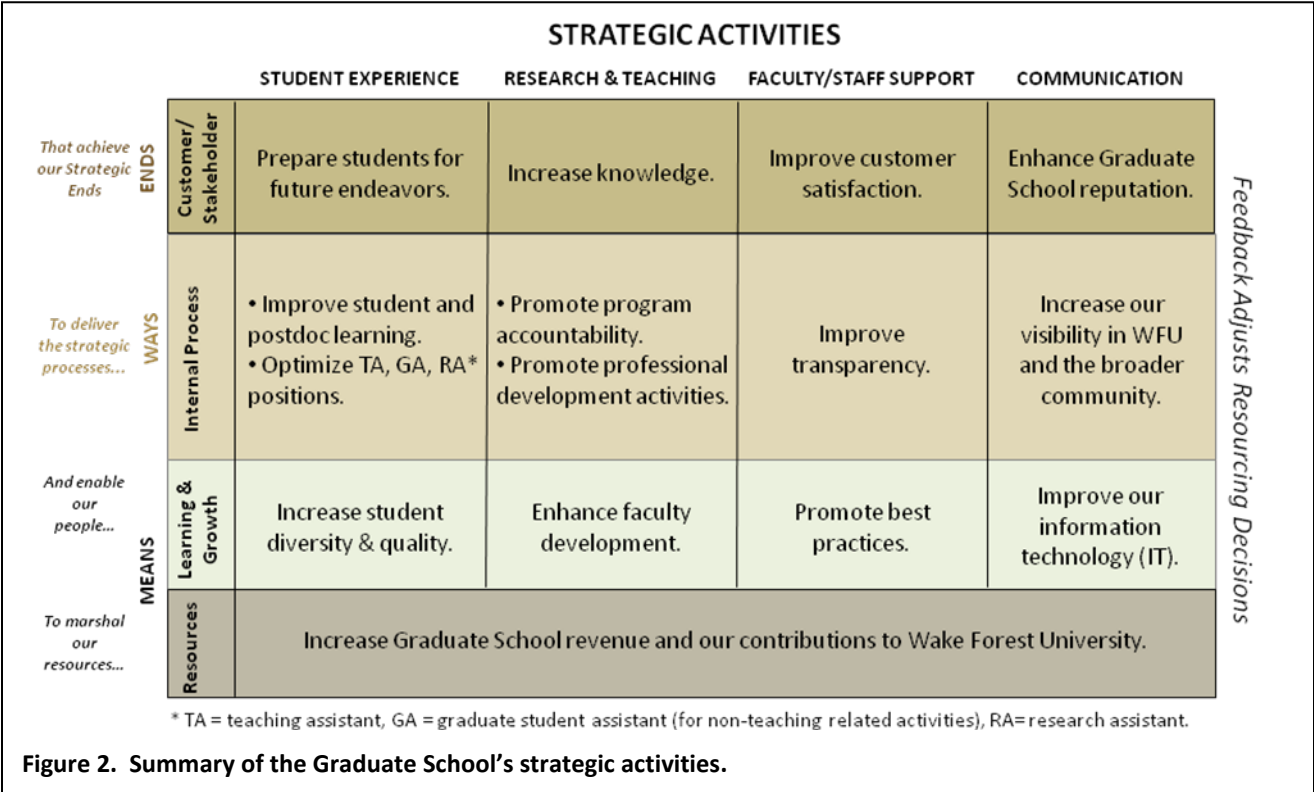
Figure 1. Graduate School mission, values & vision.

As summarized in Figure 1, our mission is to train and mentor future leaders in research, teaching, and innovation for serving humanity. We pursue this via strategic activities to create excellence in:

- **Student experience**, by providing an optimized learning and mentoring experience that prepares students to lead in any career path.
- **Research and Teaching**, by promoting high-quality partnerships for learning, discovery, and creation of value to the community.
- **Faculty and staff support**, by offering seamless, effective, aligned services to maximize time and resources for instruction and research.
- **Communication** that

celebrates the prominence and value of the Graduate School to its students, the faculty, the University and society at large.

The strategic activities we pursue to achieve our mission are summarized in Figure 2. For providing **excellence in student experience**, we seek to prepare students to lead in future endeavors by improving student learning, optimizing the allocation of resources, and recruiting high-quality, diverse students. Achieving **excellence in**



research and teaching is pursued via high-quality partnerships to increase knowledge, promote program accountability, and our students’ and faculty members’ professional development. **Excellence in faculty and staff support** is promoted by striving to provide services aimed at yielding high customer satisfaction – with our “customers” being our students, graduate faculty, University leadership, or the community at large – and that demonstrate transparency and best practices. Regarding **excellence in communication**, we aim to enhance the reputation of the Graduate School, increase our visibility within WFU and the broader community, and improve our information technology so as to make our operations more efficient. Finally, to have sufficient resources for these operations, we seek to increase our revenue and contributions to WFU.

B. Actions Initiated Over the Past Year to Achieve These Goals and Outcomes Achieved

1. Excellence in Student Experience.

a. Common student, post-doc services provided. The Graduate School provided orientation sessions for new students on the Bowman Gray campus in early August and on the Reynolda campus in late August. In addition to welcoming the students, each session covered compliance and computer licensing issues, the Honor Code, health insurance, and student services. A general orientation for students serving as TAs on the Reynolda campus was also included.

Throughout the year, over 103 hours of professional development instruction were made available to all students. These consisted of workshops on how to give effective oral presentations, grant writing, manuscript preparation, conflicts of interest, teaching tips and additional topics as exemplified below:

- “Internship Opportunities for Graduate Students”, with an introduction by Mike Tytell and reports on internships experiences by students D Poranki and H. Cuffe.
- “Basic Research for Army Applications”, David Hairston, PhD, Translational Neuroscience Branch, US Army Research Lab, Aberdeen Proving Ground, MD.
- “Forensic Science Careers”, Lauren Stainback, CEO & Director, Triad Forensics Laboratory, Winston-Salem, NC.
- “Adventures in grants consulting: The art of telling really smart people what they’re doing wrong without turning them off”, M S (Peg) Atkisson, PhD, Grant Writers Seminars & Workshops, LLC.

The Grad 701 course was offered to students on both campuses, and included outside speakers who provided advice on careers outside of academia.

The Graduate School offers an internship program with various biotech companies or organizations. Applications and processing procedures were revised last year and successfully implemented this year. A total of 10 students, or approximately twice last year’s number, took part in such opportunities with organizations such as Targacept, the Office of Asset Technology Management, and the Ageno Lab in Stuttgart, Germany (with the assistance of the German RISE program (www.daad.de/rise-pro/en/)).

Perspective	Activities	Target	Measures	Status (6/12)
Customer/ stakeholder	<ul style="list-style-type: none"> • Prepare students for future endeavors. Accountable: D Godwin. Action: Grad Prog Dirs.	<ul style="list-style-type: none"> • Effective services. • 90% student, post-doc satisfaction; placement. • >75% PhD; 90% MA, MS completion. 	<ul style="list-style-type: none"> • Students surveys. • Monitor degree completion, career outcomes. 	<ul style="list-style-type: none"> • Common student, post-doc services provided. • High levels of student satisfaction. • Very good program completion, outcomes.
Internal processes	<ul style="list-style-type: none"> • Improve grad student, post-doc learning. Accountable: D Godwin. Action: Grad Prog Dirs.	<ul style="list-style-type: none"> • Create Grad Prog, Track Dir guidelines. • Implement PhD tracks. • Create Code of Student Conduct. • Support mentoring. 	<ul style="list-style-type: none"> • Survey TA, GA needs. • Monitor conduct violations. 	<ul style="list-style-type: none"> • Guidelines completed. • TA, GA needs met. • New tracks, programs implemented. • Checklist for Honor Code proceedings created.
	<ul style="list-style-type: none"> • Optimize TA, GA, RA assignments. Accountable: LG Moore. Action: Grad Prog Dirs.	<ul style="list-style-type: none"> • Support essential TA, GA positions. • Promote fellowships, grants, RA positions. 	<ul style="list-style-type: none"> • No. of TAs, GAs, RAs. • Participation in Grad/Post-doc Res Day. • Student/post doc successes. 	<ul style="list-style-type: none"> • No. of TAs, GAs, RAs, training grants, fellowships increased. • Grad/Post-doc Research Day expanded. • Web publicity enhanced.
Learning & growth	<ul style="list-style-type: none"> • Recruit diverse, high quality students. Accountable: B Jones. Action: Grad Prog Dirs, Grad Sch Staff.	<ul style="list-style-type: none"> • >20% underrepresented minorities (URM). • New programs. 	<ul style="list-style-type: none"> • No. of applications, % URM. • No., kind of new programs. 	<ul style="list-style-type: none"> • Apply Yourself™ implemented. • % URM applicants, matriculants increased. • New programs developed.
Resources	<ul style="list-style-type: none"> • Increase Grad School resources (\$, value). Accountable: Deans. Action: Grad Prog Dirs.	<ul style="list-style-type: none"> • Competitive stipends. • Greater Grad Prog Dir oversight. 	<ul style="list-style-type: none"> • Monitor tuition revenue, fellowships, endowment. • Program highlights. 	<ul style="list-style-type: none"> • Net revenue increased. • Annual Report summary of program highlights.

Figure 3. Activities undertaken in 2011-12 for promoting excellence in student experience.

Other services overseen by Associate Dean Godwin included oversight of our many student organizations, awarding of Richter Scholarships, and the activities of the Office of Postdoctoral Affairs. The Graduate Student Association organized a series of professional development and social events as described above (see page 15). A council of graduate-student organizations was formed to help coordinate the various activities organized by the Black Graduate Student Association, Brain Awareness Council, and the Chinese Graduate Student Association. The awarding of Richter Scholarships, a program open to Reynolda campus students, was improved by revising application and review procedures to enhance clarity and rigor. Six (6) awards were made in April and \$26,530 committed for travel, and study costs. Supported were projects to engage in a study of health and career-related counseling in Malawi (Paul Smith, Counseling), scientific collaboration and conservation research in Tanzania (Daniel Griffith, Biology), a recreation of the walking tours of William and Dorothy Wordsworth in Scotland (Theodore Barton, English), documentary film work in India and Pakistan (Kimberly Dryden and Sana Haq, Documentary Film), and genetic research in New Zealand (Felipe Estela, Biology).

Among the activities organized by the Office of Postdoctoral Affairs were presentations on “How to Give a Talk” by Dr. David C.S. Roberts; “Adding Defense Funding to Your Research Portfolio” by Dr. Luke Burnett (KeraNetics), and Drs. Robert Hampson and Mark Van Dyke (WFIRM); “Media Training 101” by Paula Faria (WFUBMC Media Relations); and “The Essential Role of Scientists in Shaping Science Policy” by Dr. Mark Lively. The very popular Postdoctoral Scholar Development Award program was continued and eight (8) competitive, up to \$500 awards were given to Reynolda or Bowman Gray campus fellows to attend a meeting or undertake a professional development activity in support of their scholarship. National Postdoctoral Appreciation Day was celebrated by hosting “Postdoc Community Coffee Breaks” at *Java by Jeff* on the Bowman Gray campus and at *Starbucks* in the Z Smith Reynolds library. Our second annual awards were given to recognize excellence in postdoctoral scholarship and mentoring. Dr. Ravi Singh (Cancer Biology) received the Postdoctoral Scholar of the Year Award and Dr. Sarah Raynor (Mathematics) was the recipient of the Postdoctoral Mentor of the Year Award.

b. High levels of student satisfaction. Previously, we only surveyed students as they exited their degree programs. This provides timely feedback for our master’s students but, given the longer period of PhD study, we conducted a survey of PhD students after the completion of their first year. The 1st yr PhD students reported a high level of satisfaction with their interactions with the Graduate School, their program staff, and the quality of their advising. The most satisfying elements of their first-year experience were their immersion in their laboratory research, excitement over their research projects, and opportunities to present at research conferences. Some dissatisfaction was expressed regarding the cost and availability of parking on the Reynolda campus, and the lack of a graduate student lounge on the Bowman Gray campus – neither of which are elements directly controlled by the Graduate School.

The Exit Surveys, completed at the time of graduation, likewise report a high level of student satisfaction (Figure 4). Students were asked to assess their program, courses, faculty, other students, research resources, and their thesis or dissertation project on a 5-point scale, with “5” designating that they were very satisfied and a “1” that they were very dissatisfied, and if they would recommend their WFU program to another student. Scoring their responses as a percent of maximum (*i.e.*, if every graduate gave every item a “5”), it is clear that the students are very satisfied with their programs, courses, faculty and generally with other students (upper panel, Figure 4). Satisfaction is somewhat greater at Bowman Gray than Reynolda with respect to research resources and the thesis/dissertation experience, as would be expected given the greater focus on research in PhD programs. Graduate School operations were ranked very highly on both campuses, especially with respect to their interactions with the Graduate School staff. There was somewhat less satisfaction with Fall orientation, largely due to the fact that one of our largest programs (Education) begins in June and hence the August orientation session seems out-of-date. Grad Research Day and the Graduate Student Association (GSA) also score somewhat lower at Reynolda, probably reflecting the lesser emphasis on research in some of the master’s

programs and shorter duration of study, limiting involvement with the GSA. Qualitative remarks made by the students indicate their high-degree of satisfaction and negative ones, areas for future attention.

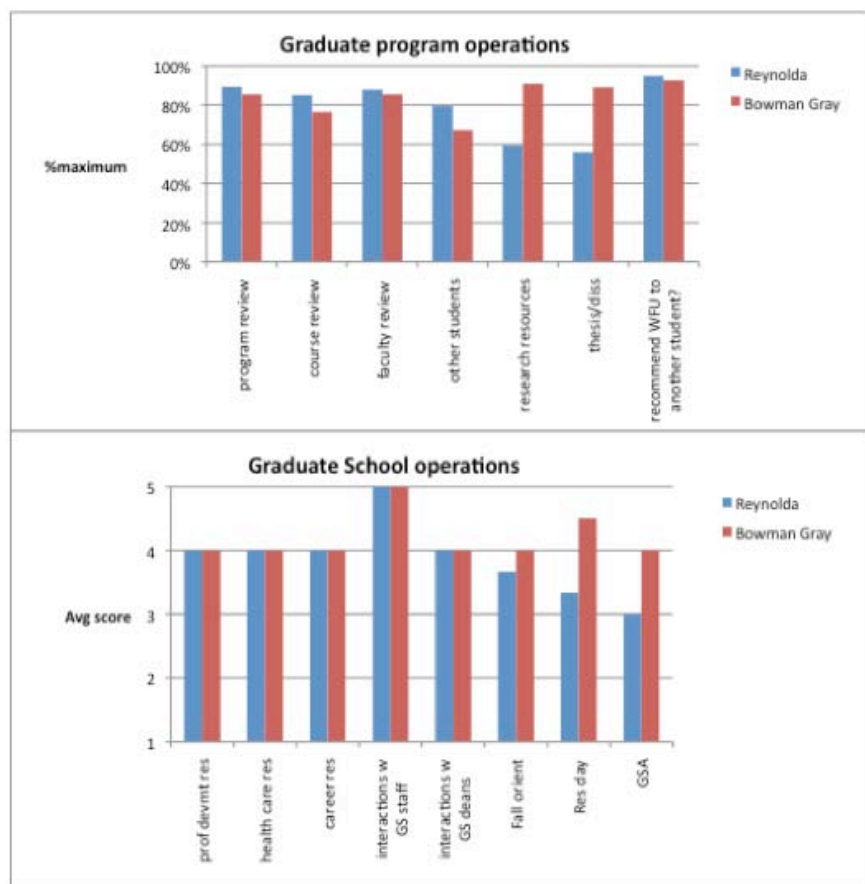


Figure 4. Results of 2011-12 Exit Surveys.

obligations delay their CPTS degree completion.

We have also recently begun to track percent degree completion. For 2011-12 this averaged 63% for all PhD programs and 72% for all MA and MS programs (Table 9B, Section VIII). We calculate these figures using a seven (7) year window for PhD programs and a two (2) year one for master's programs. The percent PhD completion was somewhat higher for Bowman Gray (67%) than Reynolda (52%) programs but both figures and our overall 63% PhD completion rate were well above the ~35% national average for students in the sciences. National percent master's degree completion data are not available (although Dean Moore is on an advisory committee for a Council of Graduate Schools study to collect such data). Overall, 72% of master's students complete their degrees within two years, with the majority (10 out of 15) of our programs having substantially higher rates of completion. Nearly all students eventually complete their degree but often require an extra 1-2 semesters to do so. The lower percent completion for CPTS students again reflects the distinctive nature of that program whose target audience, physicians, often have work-related responsibilities that delay their degree completion.

Our graduates overwhelmingly move onto positions or into programs that are consistent with program's objectives. Summarizing the data in Table 10 (Section VIII), 66% have obtained jobs at the time of graduation, 24% are continuing their education in other kinds of programs (*e.g.*, PhD, MD), and 10% do not yet know their plans. These figures are similar if each campus is considered separately (69% and 22% for Bowman Gray, 65% and 25% for Reynolda, respectively). Thus 90% of our graduates are placed in jobs or pursuing their education in ways that are consistent with their WFU graduate program's objectives. Given this 90% figure and that most

c. Very good program completion, outcomes. Over many years the time to PhD degree completion has averaged slightly more than five (5) years or approximately two (2) years shorter than the national average for students in the sciences. Time to PhD degree completion in 2011-2012 again averaged 5.2 years and was similar on both campuses (Table 9A, Section VIII). More recently we have begun to track the time to MA or MS degree completion. This averaged 2.4 years for all programs in 2011-12, with MS programs being somewhat longer (2.8 years) than MA programs (Table 9A, Section VIII). The ~ 2 year average for MA and most MS programs conforms closely to program expectations, with the longer period for some MS programs reflecting the experience of students exiting PhD programs or of physicians whose work

students whose plans are not yet known at the time of graduation do find jobs or appropriate programs for continuing study, we consider that these numbers indicate very good program outcomes.

We made several efforts in 2011-12 to aid students in their search for positions. In addition to the professional development activities summarized above, we partnered with *BioCareers.com* to offer online career services. Bio Careers®, the first and only career service dedicated to expanding professional options for life science MS and PhD students, provides online career resources and job postings to post-graduate and alumni candidates, and offers recruitment services to employers. Topics of discussion include career advice, career path assessment, competency training, employer research, salary reports, and résumé and cover letter service. We also met with members of the Reynolda Campus Office of Career and Professional Development and encouraged our students to attend their career-related events.

d. Guidelines completed. Track and Graduate Program Director Guidelines were developed, discussed at our May 2011 Graduate Program Directors' Retreat, and distributed to all directors in final form in July 2011. Such guidelines note that directors are expected to exert leadership for the program, recruit high-quality students, manage all forms of financial aid, assist with the selection of advisors, remain current with Graduate School policies and procedures (conveniently summarized in the newly-updated *Graduate Program Directors Handbook* available at our website), ensure that a Handbook is available to students that specifies expectations for successful completion of their particular program, aid faculty in their efforts to serve as effective mentors, manage the program's governance structures, and provide a summary of program highlights each year.

e. TA and GA needs met. During the Fall 2010, the College surveyed the chairs of all departments with graduate programs as to their TA and GA needs for the 2011-12 academic year. Deans Moore and Fetrow reviewed these requests and the Graduate School provided funds for stipends for requests endorsed by the College and the Graduate School. TA and GA assignments were reviewed in the Fall 2011 and, since little change in the numbers of undergraduates in the College was expected in 2012-13, relatively few additional TAs or GAs were requested for 2012-13. A review of department-specific increases in enrollments together with the increased numbers of TA or GA positions being funded by the Graduate School formed the basis of a Strategic Initiative Request submitted in October 2011. A modest amount of additional funds was committed by Interim Provost Mark Welker for 2012-13, which meets a small portion of the increased cost of the additional TA and GA positions being funded by the Graduate School.

f. New tracks, programs implemented. The past year has seen the transition from 13 separate PhD Programs to a system of seven (7) Tracks, each reflecting unique research and training areas in the Physical, Biological, and Biomedical Sciences. The purpose of this change was to better accommodate student needs and to increase the opportunities for faculty to collaborate in interdisciplinary programs, especially where such collaboration involved faculty on different campuses. These changes were most acute for the biomedical sciences, where students enrolling in the Fall 2011 entered one of four (4) Tracks rather than one of 10 Programs. Such changes were recommended as long as 20 years ago but were not implemented due to their complexity and the uncertainty within the graduate school community as to whether "single" or "multiple" portal entry-models were preferred. We feel the four-track model is the "right-size" for our interdisciplinary programs insofar as it provides an efficient means to convey the necessary depth and breadth of course-related instruction and the requisite familiarity with relevant tools for students to succeed in their chosen career path. The implementation of the track system was the culmination of nearly three (3) years of intensive effort by the Graduate Faculty, Graduate School administration and staff, and University leadership. For example, during the 2010-11 AY over 143 courses were revised, recruiting procedures were changed, systems for allocating financial aid transformed, and the Track Governance and Director Guidelines documents created. As the result of these efforts, students matriculated into this track system successfully in August 2011. Students, faculty and staff alike have uniformly praised this new system over the past year.

New MA and certificate programs in Interpreting and Translational Studies began in the Fall 2011, and four (4) graduated from this one-year program in May 2012. With a full year for recruiting, the program expects to be fully enrolled in the Fall 2012 and appears successfully launched as a leader in the burgeoning language-translating industry.

g. Checklist for Honor Code proceedings created. We instituted an Honor Code in 2007-08. Twelve (12) instances of possible Honor Code violations have come forward since then and have been managed successfully, with considerable benefit to our students and faculty alike. It became apparent this year that the creation of a checklist would help to ensure that procedures were being followed correctly, given the yearly turnover in Honor Council membership and the often-complex nature of the cases being considered. Such a checklist was developed, has been put into effect for the one (1) case heard since then, and will continue to be used in the future.

h. No. of TAs, GAs, RAs, training grants, fellowships increased. TAs provide instruction and GAs contribute other forms of graduate-student assistance to WFU's undergraduate programs. From 2008-09 (the first year in which we had the requisite tools to track the numbers of such positions) to 2011-12, the Graduate School has increased the total number of TA and GA positions on the Reynolda Campus by 19.6%. The number of Reynolda Campus RA positions has risen a like amount (21%). The total funding paid for student stipends on our Bowman Gray campus has risen 6% relative to FY11 amounts or to more than \$1,499,194, with additional funding being obtained for clinical fellows enrolled in our programs but for whom we lack salary information. The numbers of students being supported on institutional NIH training grants or individual National Research Service Awards (NRSAa) training grants is currently 54, having risen 10% (from 49) in FY11 and continuing a pattern of steady increases over the past five years. Currently, we hold 12 institutional NIH training grants and nine (9) individual National Research Service Awards (NRSAs) that support our biomedical programs. There is one (1) additional training grant housed in the Education Department on the Reynolda Campus that supports 5-7 students each year. New or revisions of training grants were submitted by groups centered in Biology, Cancer Biology, Integrative Physiology and Pharmacology, Math, Microbiology and Immunology, Molecular Medicine and Translational Science, Neuroscience, Regenerative Medicine, and Surgical Sciences. The number of external fellowships from agencies such as the NSF rose from one to two on the Reynolda campus; an additional student has a NSF fellowship and one has a fellowship from the DOD on the Bowman Gray campus. These figures show the increasing numbers and kinds of teaching- and research-related experiences being provided our students, as well as the substantial and growing kinds of the assistance provided by the Graduate School to the rest of the University.

i. Grad/Post-doc Research Day expanded. A total of 165 graduate students or post-docs, the largest number ever, presented at the 12th annual WFU Grad/Post-doc Research Day held on Thursday March 29th in Bridger Fieldhouse at BB&T Field in Winston-Salem, NC. More than 90 faculty and alumni served as judges, ensuring that each presentation was reviewed critically. Awards were given in seven (7) categories whose first place winners are listed below:

- Analytical Sciences: Joel Grim (Physics) "Improving the performance of organic devices by tuning film morphology"
- Basic Sciences: Jason Fye (Biochemistry & Molecular Biology) "TREX1 dominant mutations in lupus and Aicardi-Goutieres syndrome"
- Humanities: Sam Smartt (Documentary Film)"Wagonmasters"
- Integrative Sciences: Malaak Moussa (Neuroscience) "Rigid network structure underlies cognitive inflexibility in mature adults"
- Social Sciences: Samuel Monfort (Psychology)"Positive anticipatory emotion and recovery from stress"

- Translational Sciences: Tabitha Rosenbalm (Biomedical Engineering) "Novel repeated biphasic conducting biomaterials for peripheral nerve repair"
- Postdoctoral Fellows: Tan Zhang (Gerontology and Geriatrics) "Troponin T nuclear localization and its role in aging muscle".

Grad/Post-doc Research Day is an annual celebration of the ideas being pursued by students and post-docs across the many programs, centers and departments at WFU. With assistance from Targacept and the WF Baptist Medical Center's Office of Technology Asset Management, it is also a wonderful way for the community at large to learn more about our programs and the amazing discoveries being accomplished here.

j. Web publicity enhanced. The Graduate School web page underwent a redesign that was completed this year. New programs were added (see section f above), direct links to existing programs were established, and current events were displayed more prominently. The homepage now features recent news and accomplishments. The Academic Programs are described under multiple headings, listed by campus or by degree alphabetically. Links to student forms and information are easily accessed, as are reports and forms of interest to Graduate Faculty. Virtually any information available in paper is now linked to our website. The site is very inviting to prospective students, who may navigate from news, to program, to faculty interests with ease. Of course, the main addition to our web publicity this year was the implantation of ApplyYourself™ as our on-line application system. A Diversity webpage is currently under development, with the domain name <<diversity.graduate.wfu.edu>>.

k. ApplyYourself™ implemented. The adoption of ApplyYourself™ software for processing applications to our graduate programs was the outgrowth of an extensive planning and implementation effort. As commented on by one Reynolda Campus Graduate Program Director: "ApplyYourself™ is wonderful. It works!! ApplyYourself™ was a win/win." From the program directors' points of view, workload was reduced and access simplified. From the staff point of view, it was also a great success. One problem however was that items requiring larger amounts of computer memory still needed to be emailed or scanned and then uploaded by Graduate School staff into the system.

l. % URM applicants, matriculants increased. We project that the percent of underrepresented minorities (URM) among U.S. citizens entering our programs in the Fall 2012 will be nearly double that of six (6) years ago

(Figure 5). While the % URM among applicants has increased rather steadily, this is the first year in which a marked rise occurred in those expected to matriculate in the Fall. These increases can be attributed to several factors.

- We offered five (5) new \$5000/year fellowships to excellent minority applicants to our Reynolda campus programs, adding to the five (5) already provided by our Hearst Foundation Endowment. This was a pilot effort funded from the Graduate School's Reynolda

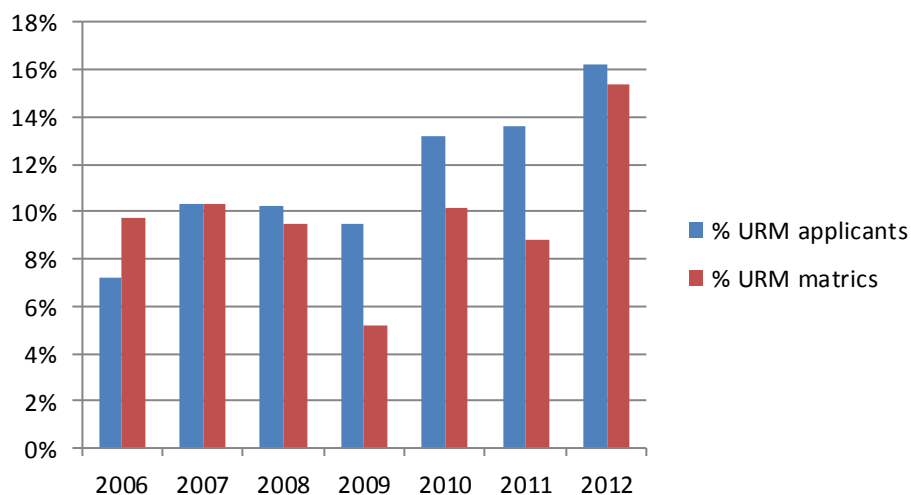


Figure 5. % URM applicants and matriculants (matrics).

Campus budget, which we hope to make permanent with increased funding from the Hearst Foundation and/or other means.

- Associate Dean Jones continued his recruiting trips to historically black colleges and universities (HBCUs) throughout the southeast and the practice inaugurated by former Associate Dean McPhail of tracking the status of persons met at these venues who indicated an interest in our programs.
- We hosted the first Demon Deacon Diversity Weekend in November 2011. Over 70 potential applicants from top-ranking HBCUs were invited to campus and met students and faculty in our programs. This event, together with other activities, has resulted in an increased awareness of WFU's Graduate Programs in the African-American community. We plan to continue this event in future years but may need to make it bi-yearly due to its considerable expense.
- We held the first Spelman Summer Research Program in the Summer 2011 and recruited a second class for Summer 2012. Spelman College representatives screen students for this program and then Associate Dean Jones arranges for their placement with appropriate faculty mentors for a nine (9) week summer research experience. The publicity from these student's experiences is beginning to increase the number of applications from Spelman College; for example, we received applications from four (4) Spelman students this year, three (3) of whom participated in our Summer 2011 program. We plan to continue this program in the future and expand it to include other schools such as Hampton University and Morehouse College.

While a particular goal in recent years has been to increase the % URM students, we have continued to recruit high-quality students as measured by other indicators; namely, high undergraduate GPA and GRE scores and selective offers of admission. In particular for 2011-12, 28% of all applicants were offered admission into our programs, with slightly more than half (63%) accepting such offers or 17% of the total number of applications then matriculating into our programs (Table 2, Section VIII). GRE and GPA scores are high, averaging 1147 and 3.3 for applicants and 1162 and 3.4 for matriculants (Table 4, Section VIII). These figures indicate the highly-competitive nature of admission to our programs.

m. New programs developed. In addition to implementing new programs, we also helped develop others:

- A committee chaired by Professor and Computer Science Chair Pete Santago prepared a proposal for new MS and PhD programs in Biomedical Informatics. The programs were approved by the Graduate Council and Graduate Faculty at our November meeting, and currently await senior administrative and Board of Trustees approvals.
- A new Biomedical Sciences MS degree has been developed. We have had two (2) biomedical-related master's programs (Molecular Medicine and Translational Sciences, Biomedical Engineering) but these serve distinctive purposes. Hence in the Fall, we convened a committee to develop a program to provide the dual service of providing an opportunity to students not completing the PhD to earn a MS degree and to serve as a foundation for the anticipated development of tuition-paying master's programs. Chaired by Professor Bridget Brosnihan, the committee completed its work in January and their proposal was approved by the Graduate Council and Graduate Faculty in April. We are currently awaiting Board of Trustees approval and anticipate that such degrees could be awarded as soon as August 2012.
- In collaboration with the WFU Schools of Business, continued development took place for the Certificate in Science Management program that was approved last year. Intended for students or postdoctoral fellows who seek careers outside of academia or even for those remaining in academia but who wish to gain business and management-related skills, this program follows on our already successful PhD/MBA program. It can either be a stand-alone program or an adjuvant to master's programs such as the Biomedical Science MS one described above.
- New specialty certificates in Clinical Bioethics and Biomedical Research Ethics were proposed and approved.

- The Master of Arts in Liberal Studies (MALS) program underwent external and internal review in 2010-11 and resultant revisions proposed this year. Following Graduate Council and Graduate Faculty approval, the program has been reformulated as a MA in Liberal Studies with four core departmental sponsors (Communication, English, History, Political Science) and two specialty areas (American Cultural Studies, Global Studies).

Other program ideas continue to be discussed and are likely to lead to new initiatives in the future.

n. Net tuition revenue increased. “Net tuition revenue” is the difference between the tuition charged each student and the amount of tuition scholarship administered by the Graduate School in the form of financial aid. In other words, this is the amount of tuition paid by students or from faculty grants, fellowships agencies, or training grants. For fiscal years 2009-2013 (projected), net tuition revenue has increased 86% on the Reynolda campus and 20% for the Bowman Gray campus, and generates approximately equal dollar amounts on each campus. The increased funds received have been invested in ways to improve the student experience and program quality by, for example, increasing the number of TA or GA positions, raising student stipends, or acquiring software to improve our application procedures.

o. Annual Report summary of program highlights. The resources of our graduate program are not just the revenue realized but also the knowledge gained. Section II above highlights our program’s achievements over the past year. Generating ground-breaking discoveries and helping to create new technologies, our programs accomplish much for which WFU can be proud.

2. Excellence in Research and Teaching.

Perspective	Activities	Target	Measures	Status (6/12)
Customer/ stakeholder	<ul style="list-style-type: none"> • Increase knowledge through research and teaching. Accountable: Deans, Faculty. Action: Res Offices, Grad Prog Dir's. 	<ul style="list-style-type: none"> • Increase grant funding, external fellowships. • Promote Teaching and Learning Ctr services. 	<ul style="list-style-type: none"> • Track revenues from grants with grad students. • Track external grad fellowships. 	<ul style="list-style-type: none"> • Monitoring systems established. • Grad student, fac teaching supported.
Internal processes	<ul style="list-style-type: none"> • Promote program consistency, quality, accountability, equity. Accountable: D. Godwin. Action: Grad Prog Dir's. 	<ul style="list-style-type: none"> • Common Grad Prog Dir guidelines. • Increase program sustainability. 	<ul style="list-style-type: none"> • %, time to degree completion. • Publicity re graduate student and faculty research, teaching. 	<ul style="list-style-type: none"> • Track Governance, Prog Dir guidelines created. • Publicity re research discoveries and teaching prowess expanded.
	<ul style="list-style-type: none"> • Improve Responsible Conduct of Research (RCR). Accountable: D. Godwin. Action: Grad Prog Dir's. 	<ul style="list-style-type: none"> • RCR training for all grad students, post-docs, grad faculty. 	<ul style="list-style-type: none"> • Monitor research misconduct, other violations. 	<ul style="list-style-type: none"> • RCR training in place. • System for background checks implemented.
Learning & growth	<ul style="list-style-type: none"> • Enhance faculty development. Accountable: Deans, Grad Prog Dir's. Action: Grad Faculty. 	<ul style="list-style-type: none"> • 5%/yr increase in grant submissions, publications. 	<ul style="list-style-type: none"> • Monitor grants, RAs, external fellowships. • Monitor Academic Analytics™ rankings. 	<ul style="list-style-type: none"> • No. of TAs, RAs, training grants, fellowships increased. • FY10 Acad Analytics™ data distributed to PhD Prog Dir's.
Resources	<ul style="list-style-type: none"> • Increase Grad School resources (\$, value). Accountable: LG Moore. Action: Grad Prog Dir's. 	<ul style="list-style-type: none"> • Stipend “floors” of \$25k (PhD), \$11-15k (MA, MS). 	<ul style="list-style-type: none"> • No. of training grants, fellowships. 	<ul style="list-style-type: none"> • Net tuition revenue increased. • Assistance with research grants provided.

Figure 5. Activities undertaken in 2011-12 for promoting excellence in research and teaching.

a. Monitoring systems established. Support for our students varies throughout the year as students move to and from TA, GA, RA (Reynolda) or Graduate Fellowship (Bowman Gray) positions and as faculty grants turn over, making it difficult to track research- and teaching-forms of support. Coordination with the Office of Sponsored Research and Programs on the Reynolda campus was undertaken so that we were informed about the receipt of grants that included support for graduate students. We also updated our internal processes for tracking numbers of TA or GA positions (Reynolda), Graduate Fellowship (Bowman Gray), and net tuition revenues (both campuses) so as to have real-time data as to the ways in which financial aid is being administered.

b. Graduate student, faculty teaching supported. Workshops are provided to our graduate students and post-docs as listed above (see Section1a). We also provide TAs with information pertaining to compliance-related issues at new student orientation, with program-specific forms of instruction occurring within programs. The advent of the Teaching and Learning Center has proven a great asset for providing cutting-edge tools and advice about ways to improve student learning.

We worked with the Medical School and College administrations to clarify the support for graduate faculty teaching. Those discussions are ongoing and will be facilitated once the report from the Biomedical Programs Financial Structure Committee has been reviewed by the School of Medicine Dean and the new Provost. Clarity with the College regarding support for graduate-level teaching is also required.

c. Track Governance, Prog Dir guidelines created. The guidelines in Section 1d above not only benefit student experience but also our student's and faculty's research- and teaching-related activities.

d. Publicity re research discoveries and teaching prowess expanded. Research and teaching accomplishments are posted on the Graduate School website, on the home page for current news, and under the news tab for archives. Stories reported in the news media are posted there, as are recent awards and honors. The University's Award for Excellence in Research, whose recipient is selected by the Graduate School, was also highlighted more prominently this year at the Founder's Day Convocation. In addition to reading the summarized accomplishments of the winning candidate, the President presented the candidate with a plaque commemorating the occasion.

e. RCR training in place. As a research-intensive university, Wake Forest University (including the Bowman Gray and Reynolda campuses, the WFU Primate Center and the downtown Piedmont Triad Research Park) has multiple needs for ensuring adherence to the highest standards for the responsible conduct of research (RCR). These responsibilities pertain to human as well as animal subjects, and have recently been the subject of federal legislation. In particular, the NSF, NIH and other federal agencies now require that all persons (*e.g.*, undergraduates, technicians, graduate students, post-docs, residents, faculty) be trained in professional research ethics. This resulted in several changes in our course configurations (*e.g.*, integration of our GRAD 700 into a more streamlined GRAD 713/714 series) and the formation of a RCR-Education Committee Advisory Committee that makes recommendations directly to the Senior Associate Dean for Research on the Bowman Gray campus and to the Associate Provost for Research and Faculty Affairs on the Reynolda campus. In particular, formats have been developed for ensuring that the nine (9) core instructional areas (see <http://ori.dhhs.gov/education/>) are covered and relevant populations reached. It should be pointed out that the federal guidelines specify that face-to-face, and not just web-based, instruction be employed and that groups such as postdoctoral fellows, who may arrive at without having significant RCR training, are well served.

f. System for background checks implemented. The WFU Compliance Office has been working for several years on improving its methods for issuing identification cards and granting access to areas where vulnerable

populations, such as patients and children, are located. From the Graduate School's perspective, such methods need to take into account the many kinds of students taking our courses, engaging in summer or other kinds of special programs, and the importance of the interactions between our programs and the communities being served. Dean Moore met with the directors of the Compliance Office, Yates Lackey and JT Moser, and the Legal Office to develop policies and procedures for managing compliance issues that could arise.

g. No. TAs, RAs, fellowships, training grants increased. See Section 1h above.

h. FY10 Acad AnalyticsTM data distributed to PhD program directors. The 2011-12 year has been the third year of our subscription to Academic AnalyticsTM, which is "a full service provider of academic intelligence data ... [that has been] producing an annual database on faculty scholarly productivity ... geared to delivering accurate and timely academic business intelligence to university administrators" (<http://www.academicanalytics.com/>). Together with the Office of Institutional Research, we have provided Academic AnalyticsTM with yearly updates of our faculty lists that they, in turn, have combined with information from various databases to generate an index of faculty scholarly productivity that is available to its subscribers in a password-protected manner. We provided passwords to and informed PhD program directors that the FY10 data were available and encouraged them to examine their programs so as to identify areas needing improvement and/or materials that could be used to generate favorable publicity. Several of our programs have used such information in their marketing materials. A summary of this information will be distributed to the new Provost, SOM Dean and Interim Graduate School Deans to help guide their decision as to whether to renew this subscription in the coming year.

i. Net tuition revenue increased. See Section 1n above.

j. Assistance with research grants. Graduate students provide assistance for faculty in carrying out the research required to meet the objectives of their grants. They also play a vital role in stimulating new ideas for future grants. The Graduate School supports these efforts via our workshops, courses, alumni-student travel awards to help defray the costs of students making presentations at national meetings, and compilation of program data as required for training grant and other kinds of applications. Overall extramural funding to the Reynolda campus is anticipated to fall slightly from \$9.7 million in FY2011 to over \$9.1 million in FY2012 and from \$233.9 million to an estimated \$216 million in FY2012 at the Bowman Gray campus as a reflection of national budgetary trends. It is noteworthy that the overwhelming majority of departments with the largest amount of extramural funds are those housing graduate programs, both on the Reynolda and Bowman Gray campuses.

3. Excellence in Graduate Faculty and Staff Support.

a. High level of student satisfaction reported. See Section 1c above.

b. Publicity re Grad Program achievements expanded. See Section 2d above.

c. Guidelines completed. See Section 1d above.

d. Website updated. See section 1j above.

e. Evaluated administrative and fiscal structure of the graduate programs. With the decision of Dean Moore to step down as of July 2012, the arrival of the new Medical School Dean in August 2011, and recruitment of a new Provost to begin July 2012, a faculty committee was charged by the School of Medicine Dean Edward Abraham and Interim Provost Mark Welker in September 2011 to make recommendations concerning the administrative structure of the WFU Graduate School. Associate Deans Jones and Godwin co-chaired this cross-campus

committee, consisting of an additional three (3) faculty members from each campus. The committee considered the administrative structure of the Graduate School in relation to peer institutions and to WFU's strategic goals. Recommendations were made in response to the committee's charge in advance of the arrival of Provost Kersch in July 2012, and resulted in a decision for the two associate deans to serve as interim Graduate School Deans (one for programs in Biomedical Sciences and one for programs in Arts and Sciences) during the 2012-2013 academic year while a decision about the search for a new dean(s) is being made.

Dean Moore and Dean Abraham convened a second committee to make recommendations concerning the financial model for graduate education in the biomedical sciences. This committee, comprising eight (8) faculty and chaired by Dr. Doug Lyles, delivered its final report on July 1, 2012. The committee generated six (6) recommendations designed to produce positive funds flow within the biomedical sciences and to provide additional tuition offset for faculty teaching, including provisions for phasing in charges for tuition on faculty grants, and development of tuition-generating Masters programs.

Perspective	Activities	Target	Measures	Status (6/12)
Customer/ stakeholder	<ul style="list-style-type: none"> • Improve customer satisfaction. Accountable: LG Moore. Action: Assoc Deans, Grad Sch Staff.	<ul style="list-style-type: none"> • 75% customer satisfaction. 	<ul style="list-style-type: none"> • Survey grad students, post-docs annually. • Document Grad Prog achievements. 	<ul style="list-style-type: none"> • High level of student satisfaction. • Publicity re Grad Program achievements expanded.
Internal processes	<ul style="list-style-type: none"> • Improve transparency in operations, decision-making. Accountable: LG Moore. Action: Grad Sch staff.	<ul style="list-style-type: none"> • Create Grad Prog, Track Dir guidelines. • Post BSC, Newsletters, News & Publications, Annual Report at website. 	<ul style="list-style-type: none"> • Survey faculty satisfaction. • Track BSC hits at website. 	<ul style="list-style-type: none"> • Guidelines, completed. • Website updated. • Evaluated administrative and fiscal structure of the graduate programs.
Learning & growth	<ul style="list-style-type: none"> • Improve Grad Sch IT; promote best practices. Accountable: Deans. Action: Deans, Grad Sch Staff.	<ul style="list-style-type: none"> • Increase Deans', Grad Sch Staff satisfaction. • Accomplish ≥ 1 Deans, Grad Sch Staff improvement /yr. 	<ul style="list-style-type: none"> • Yearly performance evaluations. • Monitor Grad Sch improvements. 	<ul style="list-style-type: none"> • Strong evaluations. • Apply Yourself™ adopted. • Dropbox™ sites created for Grad Sch Staff, Council.
Resources	Increase Grad School resources (\$, value). Accountable: LG Moore. Action: Assoc Deans, Grad Prog Dirs, WFU admin.	<ul style="list-style-type: none"> • Meet College TA, GA needs. • Provide salary support for Track, Grad Prog Dirs. 	<ul style="list-style-type: none"> • Net tuition revenue endowment. • No. of training grants, fellowships. 	<ul style="list-style-type: none"> • No. of TAs, GAs, RAs, training grants, fellowships increased. • Net tuition revenue increased. • Salary support for Track Dirs, admin assists obtained.

Figure 7. Activities undertaken in 2011-12 for promoting excellence in Graduate Faculty and Staff support.

f. Strong evaluations. Staff performance evaluations were carried out for all Reynolda and Bowman Gray campus staff members. The Graduate School is fortunate to have an extremely capable and dedicated staff. Staff members were encouraged to identify areas where additional training would be helpful and to take advantage of courses or programs offered through the Reynolda campus Professional Development Center, from regional offerings or other sources.

g. ApplyYourself™ adopted. See Section 1k above.

h. Dropbox™ sites created for Grad School Staff, Council. Dropbox™ is an open-source software program that permits storage of computer files in the “cloud” such that they can be accessed by persons to whom permission is given. Since a great many documents are shared among Graduate School staff members (including its Deans) and between the Graduate School administration and the Graduate Council, such sites have proven valuable for distributing necessary materials without overloading persons’ email boxes, creating confusion over multiple drafts, file loss, etc. Such a system has also permitted for example, editing a list of ways to improve Grad Student/Post-doc Research Day or other such shared activities. ApplyYourself™ is another kind of software that has been acquired jointly by the two campuses for improving the processing of applications and Biocareers.com for aiding students in their job searches. We continue to use software tools introduced last year; namely, Constant Contact™ for bundling emails, Survey Monkey™ for conducting 1st year- and exit-student surveys, Doodle™ for scheduling meetings, Tegrity™ for access to course lectures on the Bowman Gray campus, Linked In™, Facebook™ and GradMail for maintaining contact with past or prospective students. In response to faculty desire to increase institutional training grant submissions, to aid this effort a database product, Curvita™, was evaluated and is in the process of being installed but currently this process is on hold because of the ongoing upgrade to the PeopleSoft™ system and other development priorities.

i. No. TAs, GAs, RAs, training grants, fellowships increased. See Section 1h above.

j. Net tuition revenue increased. See Section 1n above.

k. Salary support for Track Directors, admin assistants obtained. Support toward Graduate Program Director’s salaries has traditionally been obtained from the budgets of Department Chairs of the School/College in which the faculty were housed. However this model can be problematic for interdisciplinary programs. Hence discussion was begun last year and completed during the present year such that track directors and administrative assistants now receive their graduate-program related salary support through the Graduate School. This has simplified operations for recruiting, course work, and other kinds of common activities, and has been greatly welcomed by staff and faculty alike.

4. Excellence in Communication.

a. High levels of student satisfaction. See Section 1b above.

b. Website updated. Our website is our chief means of communicating with prospective students and a primary way to disseminate information about our programs and related activities to our faculty and students. Significant improvements were made over the course of the year by, for example, creating direct links to faculty pages so that more current information was available concerning publications, putting stories about faculty and student successes up on our News and Publication page more promptly, offering professional development support including the new BioCareers™ portal, adding descriptions and links to our newest graduate programs, and aiding students with their applications by adopting our new on-line, ApplyYourself™ system.

c. Grad School email digests, Newsletters, Annual Report completed. We continued the system adopted last year of bundling information for distribution to graduate program directors in the form of an “email digest” to avoid flooding persons’ email boxes. We maintained and enhanced our social media presence through Linked In™ and FaceBook™ sites, and consolidated email communications through GradMail (for graduate student news items) and Hotlinks (for postdoctoral fellows). We also distributed our Semiannual Newsletter and notices about the availability of our Annual Report in this fashion. The Newsletter was distributed to all alumni or friends of the Graduate School whose names were on file in the Advancement Office on the Reynolda campus and the Development Office on the Bowman Gray campus in an effort to increase fundraising.

d. Size, kinds of WFU events expanded. We expanded our events with the inclusion of the first Demon Deacon Diversity Day in the Fall and an approximately 25% increase in student/post-doc participation at Grad/Post-doc Research Day. Last year we initiated and this year we took part in “NC Graduate Education Day” at the state capital. For this event each graduate school in the state sends several students to present their research to state legislators and staff persons so as to demonstrate the benefit of our graduate programs for improving the state’s economy and societal well-being. This year’s participants were Erin Silva (Comm) and Tabitha Rosenbalm (Biomed Engineering) who presented their projects on “Special Education Teachers' Motivations for Using Technology in the Classroom” and “Novel Repeated Biphasic Conducting Biomaterials For Peripheral Nerve Repair” respectively. Associate Dean Jones arranged opportunities for them to talk with our legislative representatives, including Senator Linda Garrou, Senator Peter Brunstetter, Representative Earline Parlmon, and Representative Julia Howard.

Perspective	Activities	Target	Measures	Status (6/12)
Customer/ stakeholder	<ul style="list-style-type: none"> Enhance Grad Sch reputation. Accountable: LG Moore, Assoc Deans. Action: Grad Prog Dirs.	<ul style="list-style-type: none"> Transparent decision making. Email digests, Newsletters, Annual Report. 	<ul style="list-style-type: none"> Survey students. Monitor application statistics, degree completion, job placement, successes. 	<ul style="list-style-type: none"> High levels of student satisfaction. Website updated. Grad Sch email digests, Newsletters, Annual Report completed.
Internal processes	<ul style="list-style-type: none"> Increase Grad Sch visibility within WFU and the broader community. Accountable: B Jones. Action: Grad Sch staff.	<ul style="list-style-type: none"> Publicize program achievements. Host 3 marquee events/yr. 	<ul style="list-style-type: none"> Expand student activities. Increase recognition of Grad Sch events. 	<ul style="list-style-type: none"> Size, kinds of WFU events expanded. Hallway monitor set up.
Learning & growth	<ul style="list-style-type: none"> Improve Grad Sch IT. Accountable: LG Moore. Action: Assoc Deans, Grad Sch staff.	<ul style="list-style-type: none"> Acquire Acad Analytics™, Apply Yourself™, Curvita™; telepresence sites. 	<ul style="list-style-type: none"> Applications’ turn-around time. No. telepresence sites. 	<ul style="list-style-type: none"> Acad Analytics™ information updated. Apply Yourself™ adopted. Curvita™ being installed
Resources	<ul style="list-style-type: none"> Increase Grad Sch resources (\$, value). Accountable: LG Moore. Action: Assoc Deans.	<ul style="list-style-type: none"> \$25k PhD, \$11k masters ‘floor’; Diversity fellowships. 	<ul style="list-style-type: none"> Raise net tuition revenue. Promote Grad Sch fundraising. 	<ul style="list-style-type: none"> Net tuition revenue increased. Student support, stipend levels increased.

Figure 8. Activities undertaken in 2011-12 for promoting excellence in communication.

e. Hallway monitor set up. The Graduate School’s principal Reynolda offices moved from the ground level to the 1st floor in Reynolda Hall over the course of the summer 2011. A monitor, installed in a highly frequented hallway, became operational in the Spring 2012 and is where we now display pictures of various Graduate School events to increase campus awareness of our activities. Events depicted include Research Day, Hooding and Awards, Graduation, NC Graduate Education Day, Demon Deacon Diversity Day, and the Spelman Summer Research Program.

f. Acad Analytics information updated. Faculty lists were updated such that the WFU information in this increasingly-used database is as up-to-date as possible.

g. ApplyYourself™ adopted. See Section 1k above.

h. Curvita™ being installed. This is a database developed by a NC company (SciMed Solutions) that enables the creation of a training grant data repository, or essentially a database for assembling the kinds of data required for training grant and other kinds of fellowship applications. The creation of such a system was recommended by a faculty committee several years ago and led to our evaluating several options, with Curvita™ being selected. The need for such a system has been heightened by the increasing pressure on grant funds for supporting faculty salaries on the Bowman Gray campus. Training grants also provide important stipend support for our students and substantial tuition revenues to the institution. Initial steps for the installation of this system have been completed, but are currently on hold. We hope that the additional steps can be completed such that it can be launched on both campuses in the 2012-2013 year.

i. Net tuition revenue increased. See 1n above.

j. Student support, stipend levels increased. See Section 1h above regarding the numbers of TA, GA, RA, fellowship and training grant positions provided our students. Additional support was provided in the form of common student services enumerated in Section 1a. Stipend levels were increased in four (4) graduate programs last year on the Reynolda Campus and for all programs on the Bowman Gray campus with the completion of our five-year plan to bring stipends to competitive levels.

C. Key Goals for 2012-2013 and Plans for the Coming Year Aimed at Achieving These Goals.

The Graduate School of Arts and Sciences has undergone significant changes in recent years with the expansion of its services for graduate students and postdoctoral fellows, and the development and launching of interdisciplinary tracks. All these changes have been remarkably well received by students and faculty. Our goals for 2012-2013 are to strengthen the position of the Graduate School, particularly as it relates to the financial stability and enhanced national standing of our excellent programs.

Two committees appointed by the senior administration have made recommendations recently regarding a) the administrative structure of the Graduate School of Arts and Sciences and b) the flow of funds in our biomedical programs. The Graduate School will be involved as a facilitator in discussions with the faculty and administration as to the best ways to resolve and implement solutions for such administrative structure- and fiscal-related concerns so as to assure broad participation and optimal outcomes. Given the changes in leadership with the departure of Dean Moore, Interim Graduate School Deans Godwin and Jones will be working together to ensure that a smooth transition is made to a permanent Dean(s). However, as always we will not hesitate from helping to implement other important University initiatives.

Our main aspiration is to transform Wake Forest University from a “Good” to a “Great” academic institution for master’s, PhD and postdoctoral level training, thus helping Wake Forest University become the nation’s leading collegiate university. We seek to do this by

- Increasing the participation of Reynolda and Bowman Gray faculty in graduate programs, and
- Improving the financial resources for graduate education at WFU.

Our specific goals for the coming year are as follows:

1) Create a coherent structure for graduate programs in the arts and sciences and the health sciences, and prepare for a new Dean(s) of the Graduate School by:

- Clarifying the organizational structure of our graduate programs to eliminate redundancies, increase opportunities for interdisciplinary training, and increase linkages between master’s and doctoral programs.

- Attaining national visibility for our doctoral and master's programs as places where connections between disciplines flourish and integrated, multidisciplinary training takes place.
- Increasing the number of graduate programs in areas where we have faculty expertise, student demand and senior administrative support, while ensuring that the market for such programs is strong.

During the 2012-2013 academic year, Interim Dean Jones will work with the Provost and the Reynolda Campus graduate programs to prepare the way for implementing the administrative structure for the Graduate School that is adopted by the University's senior leadership. The two means by which this preparation will be pursued will be to:

- Develop a budget that is transparent, understandable, and balanced for the Reynolda campus.
- Develop expectations, goals, and procedures that are universally understood and supported by both the Graduate School and the program directors.

The need for such preparation is not a reflection of any shortcoming in the current state of the Graduate School but rather an attempt to develop a system where programs will thrive even in the absence of a standing dean (as in the current year), while alleviating the uncertainty that naturally coincides with a change in leadership.

The Graduate School budget is complex and includes income from various sources (paid tuition, revenue from grants, support from the Provost, application fees, etc.). Our expenses are equally complex. During 2012-2013 we will develop a budget outline that clearly identifies our income and expenses. This will allow program directors to know where they stand, and how their program relates to others. Program directors will understand that while the budget is limited, the Graduate School continues to do all it can to improve their programs. This will also allow us to cut where needed to balance the budget without using our reserve. The new dean, therefore, will have a greater understanding of the Reynolda budget at the onset, and will know where (and how) to focus attention on critical needs.

The Reynolda graduate programs are a diverse group. Some of the programs are required to raise all of their support through tuition revenue, some receive support for providing teaching assistants for undergraduate courses, and others receive University support because of their value for enhancing the scholarly activity of the College faculty. The program needs are therefore equally diverse. Naturally, this can lead to misunderstanding or the feeling of unfair treatment, especially if each program corresponds independently with the Graduate School. During the coming year, interim Dean Jones will meet regularly with the Reynolda program directors. We will share information globally, and hopefully arrive at a point of mutual respect for all programs. We will attempt to arrive at a common set of answers to questions posed by graduate program directors such as "How much tuition revenue should our programs expect to raise?" "What is the ideal cultural make-up of my program?" "How do I grow my program to the size that is right for us and the University?" If the program directors can come to agreement on these issues, the new dean will begin with his/her best foot already forward.

The Biomedical Science programs face significant challenges as the result of the integration of North Carolina Baptist Hospital with the financial structure of the WFU Medical School and budgetary challenges stemming from the loss of patent revenue and uncertainties about NIH and other federal-agency funding. Interim Dean Godwin will work with the Track and Graduate Program Directors to develop a sustainable model of graduate student support that anticipates a mix of tuition-generating strategies. These include tuition derived from faculty grants, new NIH training grants, and exploration of tuition-generating Master's programs. We also anticipate continuing our strong leadership in broadening the PhD experience (consistent with recent NIH recommendations) by collaborating with the Innovation and Entrepreneurship Initiative to provide workshops and learning opportunities that enhance our Graduate School programs in these areas, as well as continuing our strong commitment to professional development and RCR training. Our biomedical science programs include

Biomedical Engineering, Molecular and Cellular Biology, Integrated Physiology and Pharmacology, and Neuroscience Tracks, each of which includes faculty from all Wake Forest campuses (Reynolda, Bowman Gray, the Friedberg Primate Center, and the Piedmont Triad Research Park downtown) who use the Tracks as a focal point for interdisciplinary research and teaching. With national calls to “right size” biomedical programs, our emphasis will be to focus on enhancing the quality of our programs from the time of recruitment through graduation, thus maintaining high program standards, a high faculty satisfaction, and great value for our students in terms of their research experiences and long-term career outcomes

2) Recruit and retain the best and most diverse graduate student body by

We plan to build on the great recruiting successes of the past few years by:

- Tweaking the on-line application system and *going completely paperless* in 2012-2013. In partnership with the Office of Online Education, we will purchase additional storage space from ApplyYourself™ such that applicants can upload the necessary materials directly. Another change being made for the coming year is to require that all application fees be paid online via credit card (rather than allowing the option of payment by check).
- Recruiting an incoming class for 2013-2014 that is comprised of *20% under-represented minorities*.
- Changing program-director access to ApplyYourself™ so that all application information is available as soon as it is entered by the applicant and prior to final submission.
- Recruiting at least 15 students into the newly revamped MA in Liberal Studies Program.
- Establishing and maintaining competitive stipend packages.
- Increasing the number of externally funded multi-year fellowships and training programs.
- Creating close linkages with undergraduate programs serving minorities, first-generation college students, students from economically-disadvantaged backgrounds and other under-represented groups.
- Marketing our programs aggressively via internet, print media and other means as places where connections are made between disciplines and where students are prepared for success in a range of fields, inside and outside of academia.
- Monitoring program performance via metrics for measuring success in recruiting high-quality and diverse students, retention and student advancement, and using these metrics for allocating resources.

Currently, ApplyYourself™ is programmed to keep applicant input confidential until the applicant actually completes the application and clicks “Submit.” Allowing our staff and program directors access to student information entered prior to submittal will allow us a recruiting advantage. We will be able to contact students and encourage them to complete their applications by offering specific advice or information. If we can see early transcripts or GRE scores for example, we will be able to suggest ways to improve their chances for acceptance. This will be especially important for fledgling programs such as Interpreting and Translational Studies or Liberal Studies. Also, we will be able to build relationships with minority applicants early, a crucial point in their decision-making process.

The MA in Liberal Studies Program must have 15 tuition-paying students by the Fall 2013 to be financially viable. In addition to the recruiting efforts of the MA in Liberal Studies Director and staff, the Graduate School will highlight the new program during its recruiting trips and in its general recruitment materials. The Dean will personally contact students who express interest or begin the online application procedure.

3. Exert leadership in University-wide initiatives.

We believe that collaborations among all Schools in the University will lead to a stronger Wake Forest. We value our colleagues in other schools and seek to grow with them. The Graduate School will continue to value and invest in programs and activities that benefit the University as a whole.

The Graduate School is uniquely positioned to be a leader in University-wide initiatives. Most Graduate Faculty members have their primary appointments in either the College or the Medical School. The Graduate School shares its online application system with the School of Divinity, and offers joint-degree programs with each of the other schools – Business, Divinity, Law, and Medicine. We are, therefore, the best-placed school to foster the activities of a truly collegiate university. By its very nature, the Graduate School is not capable of operating in its own “silo,” and we believe that the other schools should follow our lead. For 2012-2013 we expect to express this attitude by participating heavily in the University’s celebration of “50 Years of Diversity”. We will continue to support our Spelman Summer Research Program. Many of our Spelman visitors have collaborated with the other schools (specifically Medicine and Law). We will continue to build good relationships with the College as well. We will seek ways to decrease faculty workload, by increasing class sizes or opening more of our classes to undergraduates. We aim to be, first and foremost, model University citizens.

Some of the specific ways in which we propose to exert such leadership in advancing University-wide initiatives are as follows.

a) Support the educational mission of our graduate programs by

- Establishing a faculty committee to consider formulation of master’s programs with paid tuition, following the kind of processes used for the development of interdisciplinary tracks and establishing the Biomedical Sciences Master’s degree.
- Launching the new Certificate in Science Management, and using this as a vehicle to enhance existing master’s, PhD and postdoctoral programs as well as formulating tuition-paying programs with a professional science master’s degree emphasis.
- Helping to start the new dual undergraduate minor / MA in Bioethics, online Counseling and Human Services programs.
- Integrating technology in the classroom by enhancing cross-campus connectivity, as well as use of Tegrity™ and other electronic resources for biomedical sciences teaching.
- Advocating for compensation and credit for effort expended in graduate-program oversight and teaching for our biomedical science programs.
- Developing cross-campus teaching programs for Reynolda and Bowman Gray graduate students, post-docs and faculty.
- Managing the number of graduate fellowships to meet the faculty’s research needs as well as the student’s aspirations. This includes establishing improved processes for managing stipend support after the first year in instances of loss of grant support in our biomedical programs, or due to faculty attrition.
- Maintaining a full suite of professional development activities to enhance training in pedagogy, grant writing, manuscript preparation, entrepreneurship and other relevant areas.
- Promoting teaching, research and service roles for graduate students that enhance global well-being.
- Fund-raising to support endowed graduate fellowships for minorities and other special populations. Toward such efforts, we will explore establishing external advisory committees that include alumni and industry participation.
- Establishing and adopting a code of conduct that addresses non-academic matters in order to complement our existing Honor Code (that pertains only to matters of academic conduct).

- Ask Honor Council members to attend the orientation session held in the Fall for the College's Judicial Council so that Honor Council members can gain additional familiarity with handling the kinds of issues arising during the review of possible violations.

b) Enhance the research mission of our graduate programs by

- Completing the establishment of a database to serve as a training-grant repository. Curvita™ was identified as a program that fulfilled faculty expectations and its installation begun, but this has stalled due to the recent PeopleSoft™ upgrade. Establishing this database is absolutely essential for improving the process of applying for additional T32s, an articulated goal of faculty and senior administration, as well as tracking program outcomes. It is also consistent with the recommendations of the committee assessing the flow of funds through the Graduate School's biomedical programs as a strategy for increasing the numbers of training grants and paid tuition.
- Continuing to provide RCR training for all graduate students.
- Fund-raising to support graduate-student travel for presentation of research findings at professional meetings.
- Fund-raising for the creation of named student fellowships.
- Increasing the number of research assistantships on the Reynolda campus.
- Creating meaningful research partnerships between undergraduate and graduate programs.

This is an important moment for the Graduate School of Arts and Sciences at Wake Forest University, presenting opportunities and choices that are critical not only for determining the leadership structure of the Graduate School but also for the enduring commitment of Wake Forest University to the mission of educating the next generation of scholars, teachers and researchers. New leadership at the University as well at Wake Forest University Baptist Medical Center, institution-wide plans for raising our standing nationally, and our vision for capitalizing on the synergies between disciplines as well as across schools and colleges create an opportunity to propel us into national leadership. Our world-class faculty values the intellectual engagement, support and consistent service provided by our strong graduate programs, and the Graduate School has provided leadership in many strategic areas that are of utmost importance to the nation and the University. We will make continued progress to realize our shared goals in the coming year.

V. HOW CAN OTHER OFFICES AND SERVICES OF THE UNIVERSITY BE IMPROVED TO ASSIST FACULTY AND STAFF IN ACHIEVING THE GRADUATE SCHOOL'S STRATEGIC GOALS

The Graduate School gratefully acknowledges the ongoing support provided by WFU Interim Provost Mark Welker and WFU Medical School Dean Edward Abraham. This support has made it possible to fund stipends for TAs or GAs, fellowships, tuition scholarships, and the personnel and operating budgets for the Graduate School offices on both campuses.

The many forms of support provided to our graduate programs by the Wake Forest College Dean Jacque Fetrow, and by the College as well as the WFU Medical School Department Chairs are also gratefully acknowledged. We thank Senior Medical School Associate Dean for Research Jan Wagner and Mark Welker in his dual role as Interim Provost and Director of the Office of Research and Sponsored Programs, and the central administrations for helping to support our subscription to *Academic Analytics*™. We also especially thank Assistant Provost Barbee Oakes and the Office of Multicultural Affairs Director Alta Mauro for their help with our recruiting initiatives. We are grateful to the Director of the Teaching and Learning Center Catherine Ross for her office's support and willingness for our graduate students and post-docs to attend their teaching-related workshops.

Special thanks are extended to the Graduate Program and Track Directors for their assistance as well as to the many faculty who served on student committees. We are grateful to the many graduate faculty who participated as Graduate Council members, Faculty Senate representatives, Faculty and Student Grievance Liaisons, Honor Code panel members, and other Graduate School committees/task forces or working groups as all these efforts helped our programs function at their intended, high level. We also thank profoundly the Graduate Student Association co-chairs for their participation in Graduate Council, the heads of the other student associations for all their efforts, and the student members who served on the Honor Code panels. These persons are listed in the Appendices of this report.

Many offices of the University have helped our graduate students in numerous ways. We express our appreciation to all these persons; including Career and Professional Development Office Vice President Andy Chan and Director Ladd Flock, Counseling Center Director Dr. Robert McNamara, Dr Jamie Ungerleider of the Student Wellness Center, the Carenet staff, Financial Aid Director Bill Wells, Institutional Research Office Director Ross Griffith, Learning Assistance Center Director Van Westervelt, Professional Development Center Director Andrea Ellis, Teaching and Learning Center Director Catherine Ross, and Writing Center Director Tom McGohey. Additional assistance from Z Smith Reynolds Library Dean Lynn Sutton and Scholarly Communication Librarian Molly Keener, and from Coy Carpenter Director Parks Welsh has been instrumental for the operation of the ETD system for submitting our master's and doctoral student's theses and dissertations.

We are indebted to the many persons and offices helping with our Fall Orientation sessions held in August of each year to welcome new students and familiarize them with University procedures. In particular, assistance at the early August New Student Orientation on the Bowman Gray campus was graciously provided by Kevin Brewer from Academic Computing for HIPAA training and other institutional policies; by Graduate Student Association representatives Dan Stovall, Kristal McKenzie, and Sarah Maveety; by Black Graduate Student Association representative Ayana Martin; by Brain Awareness Council representative Malaak Moussa; by Health and Effectiveness Council representative Jessica Cooke and Amy Hicks; by Education Compliance Officer Mary Truell; by Financial Aid Counselor Tom Benza and Director Melissa Stevens; by International Studies Assistant Director Kent Greer; by Student Health Services representative Betsy Idol; and by United Health Care Insurance representative Wendy Massingill. In equal measure, we thank the speakers at our late August 2011 Orientation held on the Reynolda campus: Tom Benza from the Financial Aid Office, Michael Shurman from the Learning and Assistance Center, Molly Keener from Z Smith Reynolds Library, Kathryn Carstens (Director of Nursing) and Darren Aaron (Associate Director) from Student Health Services, Alex Crist from Parking and Transportation Management, Kristal McKenzie and Ricquita Pollard as representatives from the Graduate Student Association, and Caitlin Burchette who is Senior Benefits Administrator for the Student Health Insurance Plan. We also thank the persons at the Office of International Studies who hold their own orientation session for our new international students.

The many kinds of budgetary, human resources, and other kinds of assistance throughout the year from Shannon Badgett, Brandon Gilliland, Doug Lischke, Laurie Molloy, and Sheila Lockhardt are much appreciated. Special thanks are extended to Financial and Accounting Services staff member Dixie Ross for the financial information and acumen she provides for the Graduate School. We also appreciate the help given by Dina Marty, Yates Lackey and JT Moser regarding legal and compliance-related matters.

Special thanks are extended to Mike Ayuso and Associate Provost Rick Matthews from Information Services on the Reynolda campus; and Johannes Boehme from Academic Computing, and Adam Lankford and Sally Wells from the Peoplesoft office for their help in implementing our ApplyYourself™ application system on the Bowman Gray campus. We also thank the Information Services staff for their help in enabling our staff to gain information through Cognos reports. While appreciative of the help received, additional assistance from the

Advancement / Development and Alumni Offices on both campuses is requested so that the Graduate School may meet its fund-raising potential.

We especially wish to thank the superb Graduate School staff, listed by name in the Appendix, for their support and willingness to engage in the many new initiatives launched this past year, while continuing to support our core functions. These core functions include the processing of applications, monitoring progress to degree completion, meeting institutional reporting requirements, overseeing student support, and coordinating the activities of the Graduate Council and the many other kinds of meetings and special events sponsored by the Graduate School.

VI. SUMMARY OF LEARNING OUTCOME GOALS AND RELEVANT ASSESSMENT ACTIVITIES RESULTING FROM THE INSTITUTIONAL EFFECTIVENESS PROCESSES REQUIRED BY SACS

The learning-outcome goals for our students are to:

- a. Demonstrate mastery of the core concepts and methods of the discipline or the interdisciplinary area;
- b. Show the ability to implement the knowledge acquired in an effort to improve human well-being; and
- c. Meet other, more immediate goals as established at the unit level.

Assessment activities were carried out during the past year at departmental, programmatic and Graduate School levels. Assessment at the Graduate School level occurs when the program is proposed, during the regular accreditation-related review, by means of exit surveys, via recommendations for changes stemming from the Graduate School's Annual Report, or from other review-related processes. When a new program is proposed, it is sent for review to the Graduate Council and, if approved, to the Graduate Faculty as a whole, the Graduate School Dean, the Provost or Dean of the School of Medicine as appropriate, and finally the Board of Trustees. For new degree as well as certificate programs, the proposal must describe the program's objectives and justification; marketing and recruiting plans; a detailed description that includes the plan of study, standards for retention, candidacy, and graduation; the process for tracking and evaluating success; the plans for implementing improvements; and a detailed budget.

Each Reynolda Campus department or program undergoes accreditation-related, internal and external review on a 10-year schedule; the only such graduate program to be reviewed this year was the Departments of Health and Exercise Science. A jointly constructed Memorandum of Understanding (MOU) is developed following this review in order to specify the actions to be taken and is signed by the Department Chair, Dean of the College, Graduate School Dean, and Provost. On the Bowman Gray campus, the biomedical graduate programs are reviewed as a whole every seven (7) years via a self-study and internal and external reviews. The last review was conducted in 2005, and hence the next review is due soon. At both campuses, additional means include the first-year PhD student survey introduced in 2011-12; the exit survey conducted at the time of graduation for evaluating both the operations of the Graduate School and the program; the application, enrollment, time-to-degree, and percent degree completion data contained in our Annual Reports; and the periodic reports from committees such as those charged this past year with a review of the administrative structure of the Graduate School and of the financial structure of its biomedical programs. These assessment activities have led to the dissolution of some programs, creation or renaming of others, revision of the professional development courses on the Bowman Gray and Reynolda campuses, and changes in administrative procedures such as the adoption of ApplyYourself™.

VII. EFFORTS TO MAKE THE GRADUATE SCHOOL MORE INCLUSIVE

We have undertaken several efforts in the past year to make the Graduate School more inclusive. As detailed above, these include:

- Initiating partnership programs with institutions serving racial or ethnic minorities or other kinds of students who are under-represented in a given discipline at WFU.
- Maintaining databases to track recruitment success from regional and national recruiting fairs.
- Promoting the use of Hearst awards and the new Graduate School Diversity Fellowships to recruit URM students to Reynolda campus programs, and making efforts to enlarge the numbers of such awards.
- Introducing new and high-quality programs that are attractive to a broad range of applicants.
- Sponsoring the Spelman Summer Fellows program and assisting with other summer programs involving a high proportion of minority students.
- Accommodating the NIH-funded PREP students in Graduate School classes in order to help strengthen their credentials for entering biomedical science programs.
- Helping to initiate a NIH grant for creating a collaborative undergraduate neuroscience program with WSSU that is intended to increase minority enrollment.
- Providing services in support of Bowman Gray and Reynolda postdoctoral career development through our Office of Postdoctoral Affairs.
- Revising and resubmitting an NIH IRACDA training grant to provide teaching and research training to URM postdoctoral trainees.

The above efforts have led to increases in the numbers of minority applicants and the quality of those applicants as judged by the percent made offers of admission. Starting last summer (2011), we created a summer fellows program with Spelman College (the top-ranked HBCU), initiated a Fall 2011 Recruiting Weekend for minority students in November 2011, and made plans for beginning a Diversity Fellows Program in 2012-13. For the first time we expect an increase in the percent URM among students enrolling in the Fall 2012, indicating the success of the methods being employed but also the need for continued such activities.

**TABLE 1. GRADUATE DEGREE PROGRAMS
AT WAKE FOREST UNIVERSITY, 2011 - 2012**

Program	Master's Degree	PhD Degree	Combined with Programs Housed in other WFU Schools
Biochemistry and Molecular Biology (BAMB)		PhD	
Bioethics (BIE)	MA		MA/MDiv with the WFU Divinity School; MA/JD with the WFU Law School; MA/MD with the WFU Medical School
Biology (BIO)	MS	PhD	
Biomedical Engineering (BMES)	MS	PhD	
Cancer Biology (CABI)		PhD	
Chemistry (CHM)	MS	PhD	
Clinical and Population Translational Sciences (CPTS)	MS		MS/MD with the WFU School of Medicine
Communication (COM)	MA		
Comparative Medicine (COMD)	MS		
Computer Science (CSC)	MS		
Counseling (CNS)	MA		MA/MDiv with the WFU School of Divinity
Documentary Film (DOC)	MA, MFA		
Education - Teaching (EDU)	MAEd		
Visiting International Faculty (VIF)**	MAEd		
English (ENG)	MA		
Health and Exercise Science (HES)	MS		
Integrative Physiology and Pharmacology (IPP)		PhD	
Interpreting and Translation Studies (ITS)	MA		
Liberal Studies (MLS)	MALS		
Mathematics (MTH)	MA		
Microbiology and Immunology (MICR)		PhD	
Molecular and Cellular Biosciences (MCB)			
Molecular Genetics and Genomics (MOGN)		PhD	
Molecular Medicine and Translational Science (MMTS)	MS	PhD	
Molecular Pathology (MCPA)		PhD	
Neurobiology and Anatomy (NBAT)		PhD	
Neuroscience (NEUR)		PhD	
PhD (any program)/ MBA		PhD	With the WFU Schools of Business
PhD (any program)/ MD		PhD	With the WFU School of Medicine
Physics (PHY)	MS	PhD	
Psychology (PSY)	MA		
Religion (REL)	MA		MA/JD with the WFU School of Law

****Summer Only Program**

**TABLE 2. APPLICATION STATISTICS BY PROGRAM, FALL 2011: NUMBERS
RECEIVED, ACCEPTED, AND MATRICULATED**

	Applications	Accepted	Matriculated
BIE	18	13 (72%)	6 (46%)
BIO*	70	9 (13%)	8 (89%)
BMES*	189	45 (24%)	23 (51%)
CHM*	59	19 (32%)	7 (37%)
CNS	121	16 (13%)	13 (81%)
CNS M/Div	8	1 (13%)	1 (100%)
COM	64	15 (23%)	13 (87%)
COMD	0	0	0
CPTS	18	15 (83%)	13 (87%)
CSC	28	6 (21%)	6 (100%)
DOC	22	15 (68%)	12 (80%)
EDU	45	31 (69%)	24 (77%)
ENG	47	29 (62%)	12 (41%)
HES	19	11 (58%)	7 (64%)
IPP*	38	11 (29%)	3 (27%)
ITS	10	6 (60%)	6 (100%)
MCB*	253	47 (19%)	26 (55%)
MICR	1	1 (100%)	1 (100%)
MLS	0	0	0
MMTS	3	2 (67%)	2 (100%)
MTH	36	27 (75%)	20 (74%)
NEUR*	81	26 (32%)	13 (50%)
PHY	59	3 (5%)	3 (100%)
PSPR	1	1 (100%)	1 (100%)
PSY	148	17 (11%)	13 (76%)
REL	16	4 (25%)	2 (50%)
VIF	7	5 (71%)	2 (40%)
Bowman Gray	584	148 (25%)	82 (55%)
Reynolda	777	227 (29%)	155 (68%)
TOTALS	1,361	375 (28%)	237 (63%)
MD/PhD	67	5 (7%)	2 (40%)

*Includes MD/PhD Applicants

TABLE 3A. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITY FOR APPLICANTS, FALL 2011

	Male	Female	Unk	TOTAL	White	Black	Hispanic	Am Ind	Asian	Intern	Unk
BIE	7	11		18	12	2	1		1	2	
BIO*	32	38		70	39	7	3		3	15	3
BMES*	92	95	2	189	87	8	1		13	73	7
CHM*	30	29		59	18	2	2		3	33	1
CNS	24	97		121	94	18	1		5	3	
CNS M/Div	3	5		8	7		1				
COM	22	42		64	19	3	2	1	1	38	
COMD				0							
CPTS	11	7		18	11	1				2	4
CSC	17	11		28	4	1				23	
DOC	10	12		22	12	1	3			6	
EDU	19	26		45	42	2			1		
ENG	13	34		47	37	5	2			3	
HES	8	11		19	16	1				2	
IPP*	16	22		38	14	4	1		2	12	5
ITS	2	8		10	5	1	1			2	1
MCB*	129	124		253	121	19	7		10	78	18
MICR	1			1						1	
MLS				0							
MMTS	2	1		3	1					2	
MTH	17	19		36	21	4			3	8	
NEUR*	40	41		81	50	3	1		1	18	8
PHY	47	12		59	29	1	1			28	
PSPR		1		1						1	
PSY	43	105		148	109	13	6		10	8	2
REL	6	10		16	11	2	1				2
VIF	2	5		7	3					4	
BG	291	291	2	584	284	35	10	0	26	187	42
REY	302	475	0	777	478	63	24	1	27	175	9
TOTALS	593	766	2	1361	762	98	34	1	53	362	51
% USA URM						14.0%					
MD/PhD	48	19	0	67	40	3	0	0	1	0	23

*Includes MD/PhD Applicants

Intern: Non-US address, ethnicity not checked

Applicants: Number of completed applications received

**TABLE 3B. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITY
FOR ACCEPTED STUDENTS, FALL 2011**

	Male	Female	Unk	TOTAL	White	Black	Hispanic	Am Ind	Asian	Intern	Unk
BIE	4	9		13	11	1	1				
BIO	6	3		9	5		1		1	2	
BMES*	14	31		45	25	5			6	9	
CHM	8	11		19	7		1		1	10	
CNS	5	11		16	13	2			1		
CNS M/Div	1	0		1	1						
COM	7	8		15	8	1	1			5	
COMD				0							
CPTS	8	7		15	10	1					4
CSC	6	0		6	4					2	
DOC	8	7		15	12		1			2	
EDU	12	19		31	30	1					
ENG	8	21		29	26	1			1	1	
HES	3	8		11	11						
IPP	5	6		11	5	2	1		2		1
ITS	0	6		6	3		1			1	1
MCB*	24	23		47	37	5	2		3		
MICR	1	0		1						1	
MLS				0							
MMTS	2	0		2						2	
MTH	12	15		27	18	3			3	3	
NEUR*	9	17		26	22	1				2	1
PHY	2	1		3	3						
PSPR	0	1		1						1	
PSY	7	10		17	11	2			3	1	
REL	3	1		4	4						
VIF	2	3		5	1					4	
BG	63	85	0	148	99	14	3	0	11	15	6
REY	94	133	0	227	168	11	6	0	10	31	1
TOTALS	157	218	0	375	267	25	9	0	21	46	7
% USA URM						10.6%					
MD/PhD	2	3	0	5	3	2	0	0	0	0	0

*Includes MD/PhD Accepted

Intern: Non-US address, ethnicity not checked

Accepted: Students to whom offers of admission were made

**TABLE 3C. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITY FOR
MATRICULANTS, FALL 2011**

	Male	Female	Unk	TOTAL	White	Black	Hispanic	Am Ind	Asian	Intern	Unk
BIE	2	4		6	6						
BIO	6	2		8	5		1			2	
BMES*	6	17		23	13	2			2	6	
CHM	5	2		7	3				1	3	
CNS	4	9		13	10	2			1		
CNS M/Div	1	0		1	1						
COM	6	7		13	7	1	1			4	
COMD				0							
CPTS	7	6		13	9	1					3
CSC	6	0		6	4					2	
DOC	6	6		12	10					2	
EDU	9	15		24	23	1					
ENG	3	9		12	10	1			1		
HES	2	5		7	7						
IPP	2	1		3	2		1				
ITS	0	6		6	3		1			1	1
MCB	13	13		26	20	1	2		3		
MICR	1	0		1						1	
MLS	0	0		0							
MMTS	2	0		2						2	
MTH	8	12		20	13	2			2	3	
NEUR*	7	6		13	11					1	1
PHY	2	1		3	3						
PSPR	0	1		1						1	
PSY	4	9		13	8	2			3		
REL	1	1		2	2						
VIF	1	1		2						2	
BG	38	44	0	82	55	4	3	0	5	11	4
REY	66	89	0	155	115	9	3	0	8	19	1
TOTALS	104	133	0	237	170	13	6	0	13	30	5
% USA URM						9.4%					
MD/PhD	0	2	0	2	1	1	0	0	0	0	0

*Includes MD/PhD Matriculants

Intern: Non-US address, ethnicity not checked

Matriculants: Students who enrolled

TABLE 4A. APPLICANT STANDARDIZED TEST SCORES AND GRADE POINT AVERAGES (GPA), FALL 2011

	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT	IELTS
BIE	515	637	1152	4.6	3.3			
BIO*	531	680	1211	4.1	3.3	89	32	
BMES*	514	741	1255	3.9	3.4		32	
CHM*	490	720	1210	3.5	3.3	95	31	6.8
CNS	525	569	1094	4.2	3.5	101		
CNS M/Div	497	502	999	4.7	3.5			
COM	537	674	1211	3.9	3.3	101		
COMD								
CPTS	483	628	1111	4.4	3.5			
CSC	477	761	1238	3.5	3.5	95		
DOC	511	566	1077	4.0	3.4	93		
EDU	565	660	1225	4.5	3.5			
ENG	606	557	1163	4.5	3.6	95		
HES	460	629	1089	3.8	3.4	84		
IPP*	477	681	1158	3.9	3.2		31	
ITS	450	496	946	3.8	3			6.0
MCB*	521	685	1206	3.9	3.3		34	
MD/PhD							32	
MLS					2.2			
MMTS	570	640	1210	4.0				
MTH	518	733	1251	3.8	3.6	97		
NEUR*	524	680	1204	4.1	3.5		34	
PHY	543	753	1296	3.8	3.4	95	33	6.5
PSY	556	630	1186	4.5	3.5	102		
REL	525	570	1095	4.1	3.3	94.5		
VIF	340	455	795	2.8	3.5			
BG	515	676	1191	4.0	3.4		33	
REY	509	623	1132	4.0	3.3	95	32	6.4
AVERAGE	510	637	1147	4.0	3.3	95	32	6.4

*Includes MD/PhD Applicants

TOEFL data reported as computer-based test results

**TABLE 4B. ACCEPTED STUDENTS STANDARDIZED TEST SCORES AND GRADE POINT AVERAGES
(GPA), FALL 2011**

	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
BIE	550	636	1186	4.8	3.4		
BIO	508	633	1141	4.3	3.6	82	
BMES*	548	754	1302	4.1	3.6		29
CHM	509	756	1265	3.8	3.3	96	
CNS	566	616	1182	4.5	3.5		
CNS M/Div	480	540	1020	5.5	3.0		
COM	539	624	1163	4.6	3.4	107	
COMD							
CPTS	455	610	1065	4.9	3.4		
CSC	490	715	1205	3.8	3.6	96	
DOC	514	549	1063	4.0	3.5	101	
EDU	572	672	1244	4.5	3.5		
ENG	624	556	1180	4.6	3.6		
HES	459	606	1065	3.8	3.4		
IPP	488	689	1177	4.2	3.3		
ITS	450	496	946	3.8	3.1		
MCB*	545	686	1231	4.4	3.4		30
MD/PhD							30
MLS							
MMTS							
MTH	513	730	1243	4.0	3.6	91	
NEUR*	559	700	1259	4.6	3.6		32
PHY	550	757	1307	4.2	3.3		
PSY	641	720	1361	4.9	3.3		
REL	620	610	1230	4.3	3.5		
VIF	340	455	795	2.8			
BG	519	688	1207	4.4	3.5		30
REY	525	628	1153	4.2	3.4	96	
AVERAGE	524	641	1165	4.3	3.4	96	30

*Includes MD/PhD Accepted

TOEFL data reported as computer-based test results

TABLE 4C. MATRICULATED STUDENT'S STANDARDIZED TEST SCORES AND GRADE POINT
AVERAGES (GPA), FALL 2011

	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT Scores		
							Verb	Phys	Biol
									Total
BIE	550	620	1170	4.6	3.4				
BIO	500	613	1113	4.1	3.5	82			
BMES*	525	753	1278	4.2	3.7		8	12	10
CHM	525	763	1288	3.7	2.8	92			
CNS	558	625	1183	4.5	3.5				
CNS M/Div	480	540	1020	5.5	3.0				
COM	545	620	1165	4.6	3.3	107			
COMD									
CPTS	447	590	1037	5.0	3.4				
CSC	490	715	1205	3.8	3.6	96			
DOC	508	544	1052	4.0	3.5	101			
EDU	586	670	1256	4.6	3.5				
ENG	625	555	1180	4.5	3.5				
HES	456	623	1079	3.7	3.4				
IPP	530	713	1243	4.5	3.1				
ITS	450	496	946	3.8	3.1				
MCB	553	672	1225	4.4	3.3				
MD/PhD							9.5	11	10
MLS									
MTH	500	723	1223	3.9	3.6	91			
NEUR*	538	662	1200	4.4	3.6		11	11	10
PHY	550	757	1307	4.2	3.3				
PSY	638	724	1362	4.9	3.6				
REL	605	640	1245	4.5	3.8				
VIF	340	455	795	2.8					
BG	432	565	997	3.8	2.9				
REY	524	628	1152	4.2	3.4	95			
AVERAGE	523	640	1162	4.3	3.4	95			

*Includes MD /PhD Matriculants

TOEFL data are reported as computer-based test results

TABLE 5. STUDENT ENROLLMENT BY PROGRAM AND DEGREE, FALL 2011

	PhD Programs			Masters Programs	Unclassified	TOTAL
	PhD	MD/PhD	MS			
BAMB	14	2				16
BIE				19		19
BIO	33		6			39
BMES - WFU	31			5		36
BMES - VT	55			6		61
CABI	20					20
CHM	34		1			35
CNS				30		30
CNS M/Div				3		3
COM				26		26
COMD						0
CPTS				33		33
CSC				19		19
DOC				26		26
EDU				24		24
ENG				27		27
HES				15		15
IPP	22		1			23
ITS				6		6
MCB	26					26
MCPA	19		1			20
MICR	10					10
MLS				36		36
MMTS	22	1		2		25
MOGN	12		1			13
MTH				38		38
NBAT	8					8
NEUR	40	2	2			44
PHY	35		2			37
PSY				25		25
REL				9		9
VIF				7		7
UNCL-BG					33	33
UNCL-REY					5	5
BG	279	5	5	46	33	368
REY	102	0	9	310	5	426
Degree totals	381		370			
TOTAL	381	5	14	356	38	794

TABLE 6. DEGREE-SEEKING STUDENT PROFILE BY PROGRAM, RACE AND ETHNICITY, INTERNATIONAL STATUS, FALL 2011

	White		Black		Hispanic		Am Ind		Asian		International		Unknown		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	TOTAL
BAMB*	5	7								1		3			16
BIE	4	13			2										19
BIO	17	14				2				1	4	1			39
BMES	29	43	3	1					2	2	10	7			97
CABI	5	10		2						1	1	1			20
CHM	5	11		1					1	1	9	7			35
CNS	10	15	2	2						1					30
CNS M/Div	1	1		1											3
COM	8	8	1		1	1			1			6			26
COMD															0
CPTS	11	9	1	2					1		5	1	3		33
CSC	11	1			1					1	3	2			19
DOC	12	10		1						1	1	1			26
EDU	9	14		1											24
ENG	9	16		1						1					27
HES	4	11													15
IPP	11	4									5	3			23
ITS		4				1						1			6
MCB	11	10		1		1			2	1					26
MCPA	4	7		1							3	4	1		20
MD/PhD§	2									1	1	1			5
MICR		4		2							2		1	1	10
MLS	14	16	1	4						1					36
MMTS*	5	9	1	1						1	3	4	1		25
MOGN	4	4									2	1	1	1	13
MTH	13	13	1	2					1	2	4	2			38
NBAT	1	3								1		3			8
NEUR*	17	20							1		4			2	44
PHY	19	5									10	3			37
PSY	7	11		2					1	4					25
REL	6	3													9
VIF											2	5			7
BG	103	130	5	10	0	1	0	0	6	7	35	27	7	4	335
REY	149	166	5	15	4	4	0	0	4	13	33	28	0	0	421
TOTALS	252	296	10	25	4	5	0	0	10	20	68	55	7	4	756
% USA URM	7.1%														

§Not included in totals - already counted in programs of study

*Includes MD/PhD Matriculants

International - Non-US address, ethnicity not checked

TABLE 7. PROFILE OF INTERNATIONAL STUDENTS BY COUNTRY, CONTINUING OR NEW STATUS, AND PROGRAM, FALL 2011

Country of Origin	Continuing Students	New Students	Programs of Study (# of Students)	
			Continuing	New
Argentina	1		NBAT (1)	
Barbados	1		PSPR (1)	
Brazil	1		CHM (1)	
Cameroon	2		CPTS (2)	
Canada	1	1	BIO (1)	PSPR (1)
China	35	10	BICM (1); BMES (2); CABI (1); CHEM (6); COM (1); CSC (2); MCPA (5); MMTS (1); MTH (2); NBAT (1); PHY (11); PSPR (1); VIF (1)	BMES (2); CHM (3); COM (3); MTH (2)
Columbia	2	1	BIO (1); MICR (1)	VIF (1)
Costa Rica		2		CSC (1); DOC (1)
Ecuador		1		BIO (1)
Egypt	1		CHM (1)	
Germany	1	2	MMTS (1)	COM (1); NEUR (1)
Ghana	1	11	MICR (1)	CSC (1)
Guyana	1		BICM (1)	
India	15	2	CABI (1); CHM (5); CPTS (1); MCPA (1); MMTS (2); MOGN (2); NBAT (1); PHY (1); PSPR (1)	BMES (1); NEUR (1)
Indonesia	2		MCPA (1); MOGN (1)	
Iran		1		MMTS (1)
Israel	2		BMES (1); NEUR (1)	
Jamaica	2	1	VIF (2)	VIF (1)
Japan	1		COM (1)	
Jordan	2		BICM (1); PSPR (1)	
Nicaragua	1		VIF (1)	
Nigeria	1		CPTS (1)	
Pakistan	1		CPTS (1)	
Peru	2	1	BIO (1); CSC (1)	BIO (1)
Portugal		1		ITSP (1)
Romania	1		VIF (1)	
Russian Federation	1		PHY (1)	
Sierra Leone	1		PSPR (1)	
Syrian Republic	1		CPTS (1)	
Taiwan		1		MMTS (1)
Trinidad and Tobago		2		DOC (1); MTH (1)
Venezuela	1		PSPR (1)	
Viet Nam	2		MMTS (1); MTH (1)	
BG	41	8		
REY	42	19		
TOTALS	83	27		

**TABLE 8. DEGREES AWARDED BY PROGRAM AND
DEGREE, 2011-2012 AY**

	PhD Programs		Masters Programs	TOTAL
	PhD	MS		
BAMB*	4			4
BIE			7	7
BIO	4	3		7
BMES - WFU	4	4		8
BMES - VT	8	10		18
CABI	3			3
CHM	8	1		9
CNS			14	14
CNS M/Div			2	2
COM			13	13
COMD				0
CPTS			8	8
CSC			12	12
DOC			3	3
EDU			25	25
ENG			4	4
HES			8	8
ITS			4	4
MCPA	4		1	5
MICR	4			4
MLS			19	19
MMTS	5			5
MOGN	1		1	2
MTH			13	13
NBAT	2			2
NUSC*	6		2	8
PHY	5	1		6
PSPR	7		2	9
PSY			9	9
REL			8	8
VIF			10	10
BG	48	14	14	76
REY	17	5	151	173
Degree totals	65		184	
TOTAL	65	19	165	249
MD/PhD	3			3

*Includes MD/PhD Graduates

TABLE 9A. TIME TO DEGREE BY PROGRAM, 2011-2012

	Number of Years*			
	PhD	MS	MA	MFA
BAMB	4.8			
BIE			2.4	
BIO	4.7	3.0		
BMES	4.7	2.0		
CABI	5.3			
CHM	5.6	3.0		
CNS			2.0	
CNS M/Div			2.0	
COM			2.1	
COMD				
CPTS		3.9		
CSC		2.1		
DOC			2.0	1.3**
EDU			1.3	
ENG			2.3	
HES		2.0		
ITS			1.0	
MCPA	5.0	2.3		
MICR	4.8			
MLS**			4.1	
MMTS	4.9			
MOGN	7.0	3.3		
MTH			1.9	
NBAT	5.5			
NUSC	4.7	2.8		
PHY	5.6	2.3		
PSPR	4.8	3.7		
PSY			2.2	
REL			2.3	
VIF**			3.0	
BG	5.2	3.0		
REY	5.3	2.5	2.0	1.3
Degree avg	5.2	2.4		
AVERAGE	5.2	2.8	2.2	1.3

*Average of years from matriculation to awarding of the degree

**Not included in the averages because VIF and MLS are not full time programs, and 2 yrs of MFA coursework was completed at the University of Florida.

**TABLE 9B. DEGREE COMPLETION PERCENTAGES FOR FALL 2010
MASTER'S MATRICULANTS AND FALL 2005 PHD MATRICULANTS**

	Matriculated			Graduated			% Completion		
	PhD	MS	MA	PhD	MS	MA	PhD	MS	MA
BAMB	4			2			50%		
BIE			6			5			83%
BIO	8	3		5	1		63%	33%	
BMES	7			4			57%		
CABI	4			3			75%		
CHM	12			5			42%		
CNS			13			13			100%
CNS M/Div			2			2			100%
COM			12			9			75%
COMD									
CPTS		12			1			8%	
CSC		10			10			100%	
DOC			2			2			100%
EDU			26			25			96%
ENG			13			3			23%
HES		8			8			100%	
MCPA	5			4			80%		
MICR	5			4			80%		
MLS*									
MMTS	7	1		6	0		86%		
MOGN	5			4			80%		
MTH			17			10			59%
NBAT	2			1			50%		
NUSC	6			3			50%		
PHY	3			2			67%		
PSPR	4			2			50%		
PSY			12			5			42%
REL			5			5			100%
VIF^			10			10			100%
BG	49	13	0	33	1	0	67%	8%	
REY	23	21	118	12	19	89	52%	90%	75%
Degree avg							63%	72%	
TOTAL	72	34	118	45	20	89	63%	59%	75%

*MLS figures are not included as this is a part-time program

^VIF figures are not included as this is a summer-only, three yr program

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

Program	Undergraduate Institution	Degree	Plans
BAMB	University of Kansas UNC - Chapel Hill	PhD	Product Manager, KeraFAST, Inc. Pursue MD, WFSM Post Doc, Location Unknown Post Doc, University of Virginia
	Virginia Tech		
BIE	Augustana College	MA	Unknown position
	East Carolina University		Physician, Cape Fear Neonatology Services
	St. Mary's College		Peace Corps Volunteer
	UNC-Chapel Hill		Unknown
	University of Florida		Position in Healthcare Ethics
	Virginia Tech University		Pursue MD in GQ; Position as a medical doctor
BIO	Wake Forest University		Environmental Complaints with ITT Systems
	Judson College	PhD	Visiting Assistant Professor, Guilford College
	UNC – Wilmington		Post Doc, Gulf Coast Research Laboratory, University of Southern Mississippi
	Universite du Quebec a Montreal		Post Doc, CNRS
	University of Wisconsin – Green Bay	MS	Position as an academic
	UNC – Greensboro		Professor, Unknown University
BMES	Universidad Nacional de San Antonio		Pursue PhD, WFU
	Abad del Cusco		Pursue MD
	Wake Forest University		
	North Carolina State University	PhD	Pursue MS, WFSM
			Pursue PS, WFSM
		MS	Post Doc, United States Army Institute of Surgical Research
CABI	United States Military Academy		Research Associate, WFHS
	North Carolina State University		Research Engineer, United States Army Aeromedical Research Laboratory
	Florida State University	PhD	Post Doc, The Scripps Research Institute
	Pepperdine University		Pursue MBA, Stanford University
CHM	Virginia Tech		Unknown
	Allegheny College	PhD	Post Doc, WFSM
	Catawba College		Scientist IV, RJ Reynolds
	NC A&T University		Unknown
	UNC – Charlotte		Post Doc, Location Unknown
	University of Calcutta		Pursue further education as a Post Doc in Biochemistry and Molecular Biology at NIH and Position in Research and Development
CHM	University of Delaware		Pursue MBA; Post Doc, The Children's Hospital of Philadelphia
	Beijing University of Chemical Technology	MS	Pursue PhD, Location Unknown

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

COM	Elon University	MA	Educational Technologist
	Emory State University		Pursue PhD in Communication, University of Georgia
	Lynchburg College		Communication Manager at a Consulting Firm
	Missouri State University		Pursue a PhD; Position as a farmer
	Ohio Wesleyan University		Position in PR and social media
	Penn State University		Pursue PhD in Media, Technology and Society at Northwestern University
	Temple University		Pursue MFA in Film Production; Position doing Museum work
	Vanderbilt University		Position as a writer/editor
	Wake Forest University		Associate Director of Debate, University of Georgia
			Position as a debate coach in academia
			Pursue PhD in Communication, Texas A & M or The University of Texas
	Wesleyan University		Position in copyright/media planner in Advertising/marketing
CPTS	Belmont University	MS	Cardiologist, Indiana University
	Damascus University		Unknown
	Oregon State University		Physician, Atlanta, GA
	St. Mary's College of Maryland		Project Manager, WFHS
	University of Houston		Cardiologist, WFHS
	University of Nigeria		Physician, University of Southern California
	Wake Forest University		MD, WFSM
CSC	Beijing Jiaotong University	MS	Developer
	ChangSha University of Science and Technology		Unknown
	Elon University		Unknown
	Marshall University		Unknown
	Pondicherry Engineering College, India		Software developer
	Ricardo Palma University		PhD in Computer Science; Software Engineer
	Union University		Computer Programmer
	Universidad Nacional del Centro del Peru		Web Development, SysMind
	Wake Forest University		Software Engineer, Cengage Learning
			Unknown
			PhD in Computer Science, Harvard University
CNS	Clemson University	MA	Mental Health Counselor, Trinity Center
	Columbia International University		Staff Counselor and Program Administrator, Trinity Center, Inc.
	Elon University		School Counselor in a public school
	Furman University		Counselor in a mental health agency
	Ohio State University		School Counselor in a public school
	Penn State University		School Counselor
	UNC – Asheville		Mental Health Counselor
	UNC – Chapel Hill		Unknown

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

CNS	University of Louisiana – Lafayette	MA	Pursue PhD in Counselor Education and Supervision; Position as a school counselor at Chicago Public Schools or San Francisco Unified School District
	University of Montana		Mental Health Counselor at a community health Agency
	University of Virginia		Academic support at a university
	Wake Forest University		Pursue PhD in Counselor Education; In-Home Family Counselor at Youth Village Pursue PhD; School Counselor or Student Services at Winston-Salem/Forsyth County Schools Pursue PhD Position in counseling Pursue PhD; Counselor at CareNet, Inc.
DOC	University of Florida	MFA	Video Editor Documentary Film Production
	Hampton University		Unknown Unknown
EDU	Appalachian State University	MAEd	Pursue PhD in Education; High School Math teacher
	Georgia Institute of Technology		Teacher, public school
	Gettysburg College		High School Math Teacher
	Lucian Blaga University		Pursue PhD in Multilingual and Multicultural Education, George Mason University; Teacher
	Massey University		Pursue PhD/EdD in Education, Curriculum and Instruction at the University of Virginia; Teacher
	Miami University		Teacher
	Monash University		Pursue Med in MCERT, University of Maryland
	Salem College		High School math and chemistry teacher, North Carolina Public School System
	UNC-Chapel Hill		Teacher High School Teacher, Fairfax County Schools Pursue further education; Teacher in the Public School System Teacher, North Carolina Public School System English Teacher, North Carolina Public School System Pursue PhD in Mathematics; High School Math Teacher Pursue MA in Ethnic and African Studies, Universidad Federal de Bahia; Spanish/English Professor, Universidad Federal de Bahia, Salvador, Brazil Pursue PhD in Education or Public Policy; Teacher in a public school Teacher, North Carolina Public School System High School Science Teacher K-12 Spanish Teacher in Public School System High School English Teacher Maintain current position Pursue PhD Spanish Immersion Teacher Pursue PhD
	Unified Education Center of Brasilia		
	Universidad Iboamericana		
	Universidad Santiago de Cali		
	University of Craiova		

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

EDU	University of Michigan – Ann Arbor	MAEd	Teacher, Public School System
	University of Otaga		Pursue DDS, UNC-Chapel Hill
	University of South Carolina – Columbia		Teacher
	Virginia Commonwealth University		Pursue MA/Doctorate in Worship Studies in Ethnomusicology/Worship Studies at Liberty University/Richard Webber Worship Institute; Spanish Teacher in the NCDOE
	Virginia Tech University		Pursue PhD; High School History Teacher in a Public School system
	Wake Forest University		Pursue PhD; Teacher
			Secondary Social Studies Teacher
			Math Teacher, Charlotte-Mecklenburg Schools
ENG	Bowdoin College	MA	Pursue PhD in English, University of Notre Dame
	Ithaca College		Pursue higher education; Teacher
	Wake Forest University		Communications at International Nonprofit
	Winthrop University		Pursue higher education; teaching/editing
HES	Ball State University	MS	Exercise Physiologist at a hospital
	Calvin College		Research, WFU
	Coastal Carolina University		Unknown
	Elon University		Pursue MBA; Position in Research Administration
	Michigan State University		Cardiac Rehabilitation
	Saginaw Valley State University		Instructor at a University
	University of Colorado – Boulder		Exercise Specialist and Research Assistant, WFBMC
	University of Wisconsin – Milwaukee		Pursue MS in Public Health; position as a Patient Educator at Baptist Health
ITS	High Point University	MA	Pursue MBA, WFU; Spanish Interpreter
	Rush University		Pursue MS in Genetic Counseling, Boston University; Interpreter or lab tech in a hospital setting
			Pursue ABSN, Duke University
	Vanderbilt University		Interpreter in the medical field or teaching at the University level
	University of Georgia		
MCPA	Louisiana State University	PhD	Post Doc, UNC-Chapel Hill
	St. Louis University		Associate Veterinarian, Emory University
	Tianjin Medical University Hospital		Post Doc, WFSM
	University of Michigan		Unknown
	Kurukshetra University	MS	Research Position, Location Unknown
MICR	Allegheny College	PhD	Post Doc, Uniformed Services University
	East Carolina University		Unknown
	Louisiana State University		Post Doc, Location Unknown
	University of Ghana		Scientist, Location Unknown
MLS	Campbell College	MALS	Unknown
	High Point University		Pursue PhD; Continue teaching in Davidson County School System
	Le Moyne College		Unknown
	North Carolina State University		Pursue PhD; Teacher in Davidson County Schools

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

MLS	Rollins College	MALS	Pursue higher education
	SUNY – Fredonia		Pursue higher education
	UNC – Charlotte		Pursue PhD in Communication and Culture
	UNC – Greensboro		Unknown
			Research Analyst, Furniture/Today Media Group
			Position in higher education
	University of Georgia		Unknown
	University of Maryland		Head Coach in athletics
	University of Virginia		Position in philanthropy at a foundation
	Virginia Tech University		Pursue PhD in Psychology; Position as a therapist
	Wake Forest University		Pursue PhD in higher education; Currently employed at WFU Undergraduate Admissions Office
			Pursue higher education
			Pursue higher education
	Winston-Salem State University		Unknown
MMTS	Campbell University	PhD	Post Doc, Location Unknown
	Carleton College		Post Doc, NIH/NHGRI
	UNC-Chapel Hill		Post Doc, Location Unknown
	University of Pune		Post Doc, Location Unknown
	Virginia Tech		Post Doc, Location Unknown
MOGN	Fort Valley State University	PhD	Unknown
	Oregon State University	MS	Writer and/or Teacher, Location Unknown
MTH	Beijing University of Aeronautics and Astronautics	MA	Pursue PhD in Biomathematics and Biostatistics, University of Texas MD Anderson Cancer Research Center
	Dong Hua University		Pursue PhD in Statistics, George Washington University
	James Madison University		Pursue PhD in Mathematics, University of South Carolina
			Pursue PhD in Mathematics, University of South Carolina
	Pomona College		Pursue PhD in Mathematics, UNC-Chapel Hill; Teaching Assistant at UNC-Chapel Hill
	Salem College		Adjunct Faculty at WFU
	Simpson University		Actuarial Analyst at Aon-Hewitt
	Sonoma State University		Professor, Los Medanos College
	University of California – Los Angeles		Pursue PhD in Mathematics, Penn State University
	University of California – San Diego		Pursue PhD in Biostatistics, University of Alabama – Birmingham
	Wake Forest University		Pursue PhD, Industrial Engineering, Georgia Tech University; Graduate/Teaching Assistant, Georgia Tech University
			Pursue PhD in Mathematics, UNC-Greensboro
	Winthrop University		Pursue PhD in Mathematics, University of South Carolina
NBAT	University of Connecticut	PhD	Post Doc, Stanford University
	University of Tsukuba		Post Doc, WFSM

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

NEUR	Arizona State University Cornell University Davidson College University of Colorado – Denver University of Florida University of Texas – Arlington	PhD	Post Doc, Medical University of South Carolina Orthopaedic Surgery Residency, WFHS Pursue MD, WFSM Pursue MA, WFU Post Doc, Location Unknown Pursue MD, WFSM
	Furman University Rhodes College	MS	Assistant Winemaker, Raylen Vineyards Medical Writer, Location Unknown
PHY	Fudan University Sam Houston State University Southeast University Vinoba Bhawe University Wake Forest University Wake Forest University	PhD	Medical Physic Resident, University of Pennsylvania School of Medicine Post Doc, Tamkang University Application Support Engineer, MathWorks Pursue further education as a Post Doc; Position in industry or academia Research Scientist
		MS	Pursue MA in Medieval Studies, Western Michigan University
PSPR	Case Western Reserve University College of Charleston Davidson College Salem College State University of New York – Buffalo Universidad de Carabobo University of Wisconsin – Eau Claire	PhD	Post Doc, UNC Research Fellow, WFSM Post Doc, WFSM Pursue MS, WFSM Assistant Professor, D’Youville College Orthopaedic Surgery Residency, WFSM Post Doc, University of Louisville
	Appalachian State University North Carolina Central University	MS	Clinical Studies Coordinator, WFBMC Pursue Doctorate, Location Unknown
PSY	College of William & Mary Georgia State University Randolph Macon Woman’s College UNC – Chapel Hill University of Georgia Wabash College Wake Forest University	MA	Pursue PhD in Psychology, George Mason University Pursue PhD in Gerontology, University of Kentucky Pursue PhD in Psychology, Duke University Pursue PhD in Clinical Psychology, University of Alabama – Tuscaloosa Unknown Pursue PhD in Psychology, University of Kentucky Unknown Pursue PhD in Psychological and Brain Sciences, Dartmouth College Pursue PhD; Tutoring/teaching, WFU; Self- employed
REL	College of William & Mary Illinois College Oklahoma Baptist University UNC-Greensboro	MA	Technical Support for a local shop Pursue PhD in West and South Asian Religions, Emory University Pursue PhD in Religion Pursue higher education

TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2011-2012, AY

REL	University of Illinois – Urbana-Champaign	MA	Pursue a PhD
	University of South Carolina		Pursue a PhD
	University of Washington		Pursue Med, Georgia State University
	Wofford College		Position in teaching, writing, or event manager

TABLE 11. FINANCIAL AID AMOUNT BY PROGRAM, 2011-2012 AY (as of Oct 1, 2011)

	Tuition#	Per Course Tuition	Stipend*	Fellowship	Dean's Assistantships
BAMB	32,508		25,000		
BIE	32,208				
BIO-MS 1st	32,208		18,000		
BIO-MS 2nd	32,208		15,000		
BIO - PhD	32,208		21,000		23,000
BMES	32,508		25,000		
CABI	32,508		25,000		
CHM	32,208		21,500		23,500
CNS	32,208		8,568		
CNS M/DIV	32,208				
COM	32,208		8,568		
COMD					
CPTS	32,508				
CSC	32,208		13,000		
DOC	32,208		8,568		
EDU	32,208		6,426		
ENG	32,208		8,568	4,284	
HES	32,208		10,000		
MCPA	32,508		25,000		
MD/PhD	32,508		25,000		
MICR	32,508		25,000		
MLS		1,140			
MMTS	32,508		25,000		
MOGN	32,508		25,000		
MTH	32,208		11,000		
NBAT	32,508		25,000		
NUSC	32,508		25,000		
PHY	32,208		20,000		22,000
PSPR	32,508		25,000		
PSY	32,208		9,000		
REL	32,208		8,400	4,200	
VIF		576			

#Tuition of \$32,508 includes summer tuition of \$300 per year for Bowman Gray Campus

*An additional \$1800 is provided toward payment of health-insurance premiums for PhD students lacking comparable coverage.

TABLE 12. SOURCES OF FINANCIAL AID BY PROGRAM AND TYPE OF SUPPORT, 2011-2012 AY (as of Oct 1, 2011)

	Institutional Support					External Support				Other Support	
	Graduate Fellowship	Dean's Fellowship	Assistantship	Non-grad Institutional	Tuition Scholarship	Training Grant	Research Grant	Hearst	Indiv Award	Self	TOTALS
BAMB						1	15				16
BIE				12						7	19
BIO		1	22	1			9		1	5	39
BMES*-WFU	7			1		2	24		1	1	36
BMES - VT§											0
CABI				5		6	8		1		20
CHM			20				14			1	35
CNS			4	6	17		2	1			30
CNS M/Div					3						3
COM			18	1	6					1	26
COMD											0
CPTS				1	6	11	2			13	33
CSC			11				5			3	19
DOC			4	4	18						26
EDU	10		5	1	1	7					24
ENG	2		5		18					2	27
HES			14		1						15
ITS					6						6
MCB	24					2					26
MCPA	1					7	11		1		20
MICR*						3	7				10
MLS				16						20	36
MMTS*				1		1	23				25
MOGN*							12			1	13
MTH			20	2	14		1			1	38
NBAT*						3	5				8
NUSC*	12				4	15	10			3	44

TABLE 12. SOURCES OF FINANCIAL AID BY PROGRAM AND TYPE OF SUPPORT, 2011-2012 AY (as of Oct 1, 2011)

	Institutional Support					External Support				Other Support	
	Graduate Fellowship	Dean's Fellowship	Assistant-ship	Non-grad Institutional	Tuition Scholarship	Training Grant	Research Grant	Hearst	Indiv Award	Self	TOTALS
PHY			19	1	2	1	13		1		37
PSPR	3				4	2	14				23
PSY			16	2			5			2	25
REL			2		6					1	9
VIF										7	7
UNCL-BG				19		15	3			2	39
UNCL-REY				4						1	5
BG	47	0	0	27	14	68	134	0	3	20	313
REY	12	1	160	50	92	8	49	1	2	51	426
TOTAL	59	1	160	77	106	76	183	1	5	71	739

*Includes MD/PhD Support

§Virginia Tech support information not available

^Awarded Spring 2009

APPENDIX

A. List of Graduate Program Directors, Graduate Council Members, Faculty Senate and Grievance Committee Liaisons, Honor Code Panel Members

GRADUATE PROGRAM DIRECTORS

Steven Akman, Cancer Biology PhD
Martha Alexander-Miller, Microbiology & Immunology PhD
Donald Bowden, Molecular Genetics & Genomics PhD
Bridget Brosnihan & Richard Loeser (co-directors), Molecular Medicine & Translational Science MS, PhD
J. Mark Cline, Comparative Medicine MS
Mary Dalton & Sandy Dickson (co-directors), Documentary Film MA, MFA
Ann Geiger & Bob Byington (co-directors), Clinical & Population Translational Sciences MS, MS/MD
Dwayne Godwin, PhD (any field)/MBA
Martin Guthold, Physics MS, PhD
Roy Hantgan, Molecular and Cellular Biosciences PhD
Donna Henderson, Counseling MA, MA/MDiv
Allyn Howlett, Integrative Physiology and Pharmacology PhD
David John & Errin Fulp (co-directors), Computer Science MS
Erik Johnson, Biology MS, PhD
Paul Jones, Chemistry MS, PhD
Ellen Kirkman, Mathematics MA
Paul Laurienti, PhD (any field)/MD
Allan Loudon, Communication MA
Anthony Marsh, Health and Exercise Science MS
Leah McCoy, Education MAEd
Ronald Oppenheim, Neuroscience PhD
Gillian Overing & Gale Sigal, Medieval Studies Certificate
Tony Parent, Liberal Studies MALS
John Parks, Molecular Pathology PhD
Emilio Salinas, Neurobiology & Anatomy PhD
Fred Salisbury, Structural & Computational Biophysics Certificate (with application to physics, chemistry, biology, biochemistry and molecular biology, computer science, or mathematics)
Katherine Saul, Biomedical Engineering MS, PhD
Eric Stone, Psychology MA
Brad Tharpe, Bioethics MA, Certificate, MA/JD, MA/MD
Suzy Torti, Biochemistry and Molecular Biology PhD
Jarrod Whitaker, Religion MA, joint MA/JD
Eric Wilson and Gillian Overing, English MA

GRADUATE COUNCIL MEMBERS

Susan Fahrback, Curriculum Committee Member
Ann Geiger, Policy Committee Member
Donna Henderson, Credentials/Nominations Committee Member
Steven Kridel, Policy Committee Member
Abdou Lachgar, Curriculum Committee Member

Anthony Liguori, Curriculum Committee Chair
Allan Loudon, Policy Committee Chair
Kristal McKenzie, GSA Representative, Reynolda, Co-Chair
Fred Perrino, Curriculum Committee Member
Fred Salisbury, Policy Committee Member
Greg Shelness, Credentials/Nominations Committee Chair
Daniel Stovall, GSA Representative, Bowman Gray, Co-Chair
Mike Tytell, Credentials/Nominations Committee Member
Olga Valbuena-Hanson, Credentials/Nominations Committee Member
Eric Wilson, Credentials/Nominations Committee Member

Ex officio:

Lorna G. Moore, Dean
Dwayne Godwin, Associate Dean, ex officio
Brad Jones, Associate Dean, ex officio
Sarah Lafferty, ex officio

UNIVERSITY SENATE REPRESENTATIVES

David Anderson, Biology
Greg Kucera, Hematology/Oncology
Alan Townsend, Biochemistry

LIAISONS FOR FACULTY GRIEVANCES

Ann Cunningham, Education
Carolanne Milligan, Neurobiology and Anatomy

LIAISONS FOR GRADUATE STUDENT GRIEVANCES

Errin Fulp, Computer Science
Yuh-Hwa Wang, Biochemistry

HONOR CODE PANEL MEMBERS

Faculty:

Ken Berenhaut
Uli Bierbach
Terry Blumenthal
David Carroll
Jim Curran
Craig Henkel
Donna Henderson
Tim Howard
Sara Jones
Marina Krcmar
John Parks
Michelle Roberts
Kate Saul
Mike Seeds
Edward Swords
Yuh-Hwa Wang

Students:

Allison Arter
Zac Bailes
Stephen Baker
Nicholas Corak
Katie Crump
Samuel Fletcher
Trey Frye
Adam Golman
John Hepler
Annis Huhn
Alicia Jenkins
Tyson Lipscomb
Caleb Lord
Christopher Mauney
Joe McQuail
Laura Merritt
Ryan Miller
Patrick Millet
Quinn Morris
Van Nguyen
Xanthia Samaropoulos
Caroline Schnegg
John Tener
Mary Tuttle
Cristin Walters
1 TBA

B. List of Graduate School Staff

Lisa Canada, Administrative Secretary, *Bowman Gray Campus*
Debbie Deheck, Assistant to the Dean/Business Manager, *Reynolda Campus*
Carol DiGiantommaso, Admissions, *Reynolda Campus*
Sarah Lafferty, Administrative Assistant, *Reynolda Campus*
Susan Pierce, Registrar/Coordinator, *Bowman Gray Campus*
Kelley Reavis, Student Records, *Bowman Gray Campus*
Carla Sharpe, Administrative Secretary, *Bowman Gray Campus*
Michelle Silveri, Data Entry, *Reynolda Campus*
Tina Payne, Secretary III, *Bowman Gray Campus*
Sheila White, Student Records Coordinator, *Reynolda Campus*
Beth Whitsett, Admissions/Webmaster, *Bowman Gray Campus*
Denise Wolfe, Administrative Assistant, *Bowman Gray Campus*



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