

# ANNUAL REPORT - 2010-2011

WAKE FOREST UNIVERSITY GRADUATE SCHOOL OF ARTS AND SCIENCES



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GRADUATE SCHOOL *of*  
ARTS & SCIENCES

Annual Report  
2010-2011

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## 1. 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 and scholars in their fields. Complementing the foundational knowledge and skills provided by the other schools or colleges of the University, the Graduate School has the special role of equipping students with the advanced knowledge and special skills needed to secure leadership in the knowledge-based economy of the 21<sup>st</sup> century.

Among our chief accomplishments during the past year were:

- Placing our mission, values, and vision statements in the context of a “Balanced Score Card” so that the strategic activities by which we are achieving our mission can be more easily tracked and progress promoted.
- Improving our fiscal operations by raising student stipends in all programs and increasing the funding for student awards, recruitment, and other program activities.
- Introducing several new master’s and certificate programs.
- Reorganizing the interdisciplinary PhD programs into “tracks” with common first year curriculum and recruiting practices.
- Initiating new efforts for increasing the representation of minorities in our graduate programs.
- Improving the professional development of current students as well as postdoctoral fellows.

We are appreciative of the efforts made by students, faculty, and the central administration of Wake Forest University whose help made these accomplishments possible.

## 2. HIGHLIGHTS OF GRADUATE SCHOOL DEGREE OR CERTIFICATE PROGRAMS, AND STUDENT / POSTDOCTORAL ASSOCIATIONS

### A. Degree or Certificate Programs

Students in the BIOCHEMISTRY AND MOLECULAR BIOLOGY PhD program were active with eight (8) attending Gordon Conferences; professional meetings organized by the International Pediatric Nephrology Association, American Society of Biochemistry, NC Biotechnology, WFU Graduate School Research Day, and Biotechnology or Venture Capital Investment groups. Students received collectively 11 awards from NSF, Syngenta, Charlotte Biotechnology Conference, the Cystic Fibrosis Foundation, or WFU’s Cowgill, Camillo Artom, Cheung and Alumni Student Travel programs. The students also authored a total of 11 publications in peer-review journals, including seven (7) as first authors.

Completing its second year, the MA in BIOETHICS program graduated its first eight (8) students. A total of 18 students are continuing and will be joined by a strong incoming class in fall 2011. Funded in part by the WFU Center for Bioethics, Health & Society (CBHS), nine (9) students attended the American Society for Bioethics and Humanities conference, three (3) presented posters at the 2011 ELSI Congress (a national conference showcasing recent scholarship examining the ethical, legal, and social implications of genomic research), and three (3) were featured and the program singled out for a “Hot Topics” presentation at the WFU Graduate School’s March 22, 2011 Research Day. A master’s student is completing a clinical-ethics fellowship sponsored by the Veterans Administration and the University

of Chicago. One JD/MA in Bioethics students has earned a Schweitzer Fellowship and a summer internship with the Presidential Commission for the Study of Bioethical Issues. In 2011-2012, new courses in Biotechnology and Ethics, and Genetics and Ethics will be offered. Certificate students will have the option to specialize in Clinical Bioethics or Biomedical Research Ethics. Program faculty were productive, publishing four (4) books with an additional two (2) under contract, eight (8) book chapters, 30 peer-reviewed articles, and making 61 presentations at professional society meetings. New faculty have been added to the Center, with all WFU schools or colleges being represented. Public symposia were held on palliative care, race and health disparities. A semi-monthly seminar series and “tea time” events continue to attract student and faculty interest. A range of events is being planned for continuing to expand outreach activities as well as student and faculty participation next year.

The BIOLOGY department is committed to a mission of providing the most thorough and inspiring education possible to all of its graduate and undergraduate students. In 2010 the 24 Biology faculty co-authored 67 publications and gave 23 presentations at professional meetings, virtually all of which were co-authored with students. This work was supported by \$1.82M in extramural funding as well as substantial internal funding through the recently formed Centers. Several faculty won awards -- the Schoonmaker Prize for Community Service (Herman Eure), the Ranlet and Frank Bell, Jr., Fellow for Environmental Studies (Miles Silman), and the Kenyon Faculty Fellow (Pat Lord) -- and two (2) received Reynolds leaves (Susan Fahrback and Bob Browne). Department members provided service on 79 university committees. Undergraduate majors and credit hours grew by ~20%, a factor that affects the graduate program given the high proportion of students serving as teaching assistants. The department houses 37 PhD (including one in the Neuroscience Program) and Master's students. Four (4) MS and three (3) PhD students graduated this past year. During the course of their program, MS and PhD students co-authored an average of 3.25 and 4.25 papers respectively. Two (2) recruiting weekends were held for students offered acceptance. A new website is under construction for improving its important recruitment and communication functions. The Department undertook leadership roles in the formation of two interdisciplinary centers (Molecular Communication and Signaling; Energy, Environment and Sustainability); initiating a NIH-funded neuroscience-training program for undergraduates in conjunction with Winston-Salem State University; improving its global information systems' spatial analysis and microscopy imaging facilities; and upgrading its physical facilities with renovation of the foyer in Winston Hall as an attractive gathering space for graduate and undergraduate students; and making improvements in its HVAC system. Several teaching innovations also occurred with Ray Kuhn's immunology course being offered online to WFU students in Europe and the receipt of a Bill and Melinda Gates Foundation grant to Dan Johnson and Jed Macosko for developing electronic teaching tools. Important future plans are to increase faculty diversity, expand opportunities for faculty development through interdisciplinary work in the Centers or collaborations with other departments, and hire new faculty as members retire.

The BIOMEDICAL ENGINEERING program completed its ninth year in the joint Virginia Tech - WFU School of Biomedical Engineering and Sciences (SBES). In 2010-11, it housed eight (8) MS and 85 PhD students, with two (2) MS and 34 PhD students (including one MD/PhD) enrolled at WFU, and 10 new students expected to join the WFU campus contingent in the fall. Six (6) PhD and two (2) MS WFU students graduated this year. A new student-chapter of the Biomaterials Society was established; multiple students won national awards, including external fellowships from NSF, NIH, and the AHA; and 20 received WFU Alumni Student Travel Awards.

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

graduate program has been supported by the recently renewed NIH (NCI) training grant for the past 11 years, attracting excellent students and achieving a high degree-completion rate. Four (4) students graduated in 2010-11 and are continuing their careers as postdoctoral fellows at St. Jude Children's Hospital, Yale University, or other institutions. Trainees have been successful in obtaining extramural funding for their work from the Department of Defense, the American Foundation for Aging Research (Glaxo Smith Kline) and other agencies, facilitated in part by the two-session grant-writing workshop provided its students and fellows. Two (2) students received Graduate School Alumni Student Travel Awards to present their research at national meetings. The department has added efforts to strengthen its postdoctoral training program by raising the number of postdoctoral fellows to 16 and establishing a fellowship mirrored after the K99/R00 awards to allow postdoctoral fellows to transition to independence.

The CHEMISTRY program saw 10 PhD and one (1) MS student graduate this past year, and anticipates housing six (6) new and 37 continuing students in the fall 2011. Faculty and students had a productive year, publishing 15 papers jointly and making 81 presentations at scientific meetings or 50% more than the previous year. The faculty published an additional 19 peer-reviewed papers and were awarded more than \$1.6M in extramural awards in 2009-10, which is more than a 70% increase compared with the previous year. The faculty provided 71 graduate-research classes in addition to their substantial regular undergraduate- and graduate-teaching load, and actively participated in the cross-campus course on Drug Design. The faculty were active in various professional service capacities including manuscript and grant review, editorial boards, preparation of promotion dossiers, and community education and service outreach activities. Among the program's strengths are its active involvement with the Medical School; the Physics and Biology Departments; and the recently formed Center for Translational Science, Molecular Communication and Signaling and Center for Energy, Environment and Sustainability.

The CLINICAL AND POPULATION TRANSLATIONAL SCIENCES program (CPTS) welcomed 12 new MS students in the fall of 2010. This included four (4) junior faculty from the WFU School of Medicine, the main target audience for the program. Demonstrating the program's success, two (2) now faculty graduates competed successfully for NIH Career Development (K) Awards in the past year. Decreasing time to thesis completion continues to be a priority; of six (6) students successfully defending their theses this year, four (4) did so on time. Bob Byington (Epidemiology) joined Ann Geiger as program co-directors this past year. Bob Byington has taught the popular clinical trials course for years and he directed the team honored with the inaugural Wake Forest School of Medicine 2011 Team Science Award for their large, 12-year national trial of approaches for controlling cardiovascular risk in diabetes. Demand for the program continues to grow and we expect to have an even larger number of students matriculate in the fall 2011. Priorities for the coming year include modifications to make our Executive Committee more effective, and curricular review of the epidemiology and biostatistics courses.

The COMMUNICATION program underwent substantial change this past year with fall enrollment rising from 24 to 28 with the admission of more partial-tuition scholarship students. The remaining students matriculating in 2008-09 graduated in August 2010, bringing that cohort to 100% degree completion. Of the 2009-10 cohort, 12 graduated in May and the remaining four (4) are on track to graduate by June, which will bring this cohort to 100% degree completion as well. Teaching assignments for TAs were broadened from four (4) to nine (9) classes and oriented to focus on the undergraduate research methods, empirical and rhetoric classes. Students were active in national and regional conferences, with nine (9) making 20 presentations. Graduate students found new opportunities to interact with the students and faculty in the new Documentary Film program, and several were

involved with faculty research and grant administration. Faculty successes this past year included Michael Hughes' receipt of the National Communication Association's "Best Book Award for 2010" in the Communication Ethics Division, Ananda Mitra's publication of a six (6)-book encyclopedic volume and two (2) other books, and Randall Rogan's completion of an edited volume. Plans for the coming year include greater connection with the interdisciplinary graduate programs.

The overarching goal of the COMPUTER SCIENCE program is to provide a strong master's program for students interested in pursuing the PhD or who seek to begin their careers after receiving the master's degree. The program admitted 10 new students in the fall 2010, of which four (4) were women thus advancing one diversity-related goal. Students are supported in approximately equal numbers as Teaching or Research Assistants, and all receive either full or partial tuition scholarships. Nearly all the continuing students are supported during the summer from extramurally funded research projects. The teaching assistants provided academic services to 417 undergraduates in CSC 101, 111, 112, 221 and 231. Three (3) students graduated in 2010-11 and four (4) are anticipated to graduate in August or December 2011, one of whom has already completed a Physics PhD and another is entering a Computer Science PhD program at Georgia Tech. The Department's web site continues to be the primary recruiting agent with its graduate-program pages viewed by ~10,000 visitors from all over the world. Continuing efforts are being made to update these pages and make them more effective for graduate recruiting. Faculty together with students co-authored seven (7) publications and three (3) graduate students made collectively five (5) presentations at national or local meetings. The faculty are active in externally funded research programs, with new grants being received this year from the NSF, DOE, DOD and the internally funded centers and institutes. The faculty also provide extensive service through their work on more than 40 university, national or international professional committees.

The COUNSELING program received the highest possible endorsement from the Council on Accreditation of Counseling and Educationally Related Programs (CACREP), having both its School Counseling and Clinical Mental Health MA programs reaccredited through 2018. A total of 16 new students with diverse backgrounds were admitted into the master's program in the Fall 2010 and 17 students graduated this past year. The students in the program provided over 12,000 hours of service to WFU and to Winston-Salem schools and community agencies each year, and the faculty provided *pro bono* counseling at local mental health facilities and offered its summer course in the Flow house in Vienna for the 11<sup>th</sup> year. In addition the faculty received national awards at the American Counseling Association Conference, provided leadership in various national associations, served as a Fulbright Specialist Scholar in Turkey and a trainer of Mental Health Facilitators in Malaysia, published four (4) books and six (6) articles or book chapters, and made over 36 presentations at professional conferences. The department welcomed Ed Shaw who joined the department part time, and eagerly anticipates the arrival of two new faculty in the fall, Phillip Clarke and Jose Villalba. John Anderson retired this spring after long and valued service to the department and the university. Together with the offices of the Provost and the instructional technology company Compass-Embanet, the department drew up plans for initiating on-line counseling and human services degree programs in 2011-12.

The DOCUMENTARY FILM program matriculated its first class of 22 MA or MFA students in the Fall 2010. Many of these students were continuing the program they had begun at the University of Florida, which has now moved to WFU. Two (2) formerly University of Florida faculty also joined WFU and, together with existing faculty, launched an impressive array of new undergraduate and graduate courses as well as continued to teach existing ones. This past year saw 16 public screening events and the completion of a major film, *The Last Flight Of Petr Ginz*. Students in the inaugural MFA class won a second-place prize at the College Television Emmy Awards and are finalists for the Student Academy



Award for Documentary Film. Several grant proposals were written and screenings held at the Lincoln Center in NYC and in Jerusalem. New projects in development address socially significant issues with national and international appeal. Entrepreneurial initiatives are underway with the WFU Schools of Business and national groups such as the New Orleans Film Festival to further student career opportunities. Surpassing initial enrollment targets, 12 new students are expected to join the program in the fall. Peter Gilbert, a nationally recognized and prize-winning producer, director, and photographer of documentaries, narrative features, commercials, and music videos will also join the faculty part time in the fall.

The EDUCATION department continued its excellent, 13-mo program for preparing teachers for 21<sup>st</sup> century schools. A total of 28 students received the MAEd degree this past year. These included seven (7) mathematics and science candidates who are supported by the NSF Noyce Scholars Training Grant as well as others in English, Social Studies, and Spanish areas of instruction. The faculty published two (2) books, two (2) book chapters, four (4) journal articles, and made 18 conference presentations. Faculty continue to be productive in research and service-related activities with four (4) serving as PI or co-PI on federal grants, six (6) as PI for internal awards, nine (9) in editorial or reviewer positions, and all playing far-reaching roles in local and statewide K-12 educational programs. Departmental faculty serve on many departmental and university committees including those of the Teaching and Learning Center, Human Subjects Institutional Review Board, Graduate School, Institute for Public Engagement, Waddill Excellence in Teaching Award, and International Baccalaureate program. In addition, the faculty oversee or direct 18 licensure programs at the undergraduate and graduate levels that involve frequent state-mandated revisioning.

The EDUCATION VIF program has operated over the past decade to meet the needs of foreign nationals to earn a MA Ed degree while they are in this country occupying positions as K-12 teachers. One hundred serious-minded and proud professionals from Columbia, South Africa, China, Romania, and many other countries have brought a gift of cultural richness to our campus while completing the three-year curriculum designed to increase their professional knowledge and teaching effectiveness. The faculty participating in the summer program have been exceptional. However, the faltering economy and cuts in state funding have decreased the numbers of foreign teachers, limited the applicant pool, and caused both applications and admissions to reach an all time low with only two matriculating in the Summer 2011. Plans for the future of this program are currently under review but possibilities include tapping other groups interested in a summer program such as Teach for America teachers and/or K-12 teachers from NC Region 5 schools who seek the additional knowledge and skills offered by a MA Ed program.

The ENGLISH program graduated 10 MA students in May and two (2) are expected to graduate in August. Three (3) students presented their work at national or international meetings and six (6) won awards for supporting their research in Ireland, Paris, and the United Kingdom. Suen Wong was recognized as the Department's outstanding graduate with the receipt of the Drake Award. Three (3) graduates are moving onto PhD programs, one (1) at Boston College and two (2) at Notre Dame. Seven (7) graduate forums were offered throughout the year on pedagogy-related topics, thesis writing, applying to PhD programs, and success in getting non-academic jobs. Graduate students and faculty were active in several campus conferences including *Politics and 20<sup>th</sup> Century Art*, *Vorticism*, *A.R. Ammons' Easter Morning*, and *The State of the Field in Medieval Studies*. A total of 44 students from a range of universities applied for Fall 2011 admission, with 13 strong students expected to matriculate.

The HEALTH AND EXERCISE SCIENCE program continues to be a leader in research dealing with the effects of chronic disease across the lifespan. It is a broadly collaborative program, having research or educational partnerships with 24 WFU Reynolda or Bowman Gray graduate, research or clinical programs. Its MS students presented their research at regional or national meetings, and two (2) were accepted into elite exercise-science PhD programs. The formal teaching-review process for all departmental TAs instituted several years ago has proven effective. Strong faculty involvement is required as the faculty update lectures, provide the TA with detailed background information about the topic and with specific teaching techniques, and then evaluate the TAs as they teach the course. An outside consultant was hired to redesign and manage the departmental website in order to increase its exposure to campus and national communities. HES faculty advised one (1) graduate and two (2) undergraduate students each, published 37 peer-reviewed articles and two (2) book chapters, made 54 presentations at professional meetings, submitted 17 proposals to federal agencies, and received 15 awards totaling \$1.5M. The faculty are also engaged in new initiatives, including leadership roles in the newly funded WFU Translational Science Center on the Reynolda Campus and possible participation in an interdisciplinary program in Behavioral Health as well as the new Integrative Physiology and Pharmacology Track. Community outreach was provided via the department's involvement in large clinical trials of physical activity, service on University and national committees, and operation of the Healthy Exercise and Lifestyle Programs (HELPS) for providing assistance with the management of chronic disease to over 250 persons per week in the community, including many WFU faculty or staff.

The INTEGRATIVE PHYSIOLOGY AND PHARMACOLOGY (IPP) track includes scientists with primary appointments in a range of departments who study physiological systems and share a common perspective of pharmacology as an integrative discipline. During the past year, a governance structure was created for this PhD track and a new administrative assistant, Denise Wolfe, hired. IPP students currently include many of those housed formerly in the PHYSIOLOGY AND PHARMACOLOGY (PSPR) program. Two (2) completed their Ph.D. dissertations in 2010-2011, four (4) passed the comprehensive examination, three (3) advanced to candidacy, and several participated in certificate or professional development programs. Together with the faculty, graduate students published 33 peer-reviewed papers and submitted another four (4), co-authored 47 abstracts at professional research society meetings, delivered 41 extramural talks or poster presentations, and made 14 presentations as part of WFU seminars or research days. Students competed successfully for 14 travel awards (including three [3] Graduate School Alumni Student Travel awards), received research awards from the American Association for Cancer Research and the American Society for Pharmaceutical and Experimental Therapeutics (ASPET), were accorded the Neuropharmacology Best Graduate Student Poster award, or were finalists for other prestigious awards (e.g., the Research Society for Alcoholism Gordis Award, Lindau Meeting of Nobel Laureates). Students are supported from several T32 Training Grants or individual fellowships from the NIH, NSF, AHA, or the American Urology Association Foundation. Seven (7) IPP students contributed lectures to courses at WSSU, NCA&T, NCCU and Salem College; four (4) served as tutors; and numerous ones served on Honor Council panels or participated in service or outreach activities sponsored by the Brain Awareness Council, Primate Center, ASPET's Capitol Hill Day, Kernersville Cares for Kids, Health and Effectiveness Council, and Health on Wheels.

The interdisciplinary master's of arts in LIBERAL STUDIES (MLS) program had a total of 53 students enrolled in the Fall 2010. Twenty-three (23) students graduated, bringing the total number of degree recipients to 230 since the program's inception in 1986. The non-thesis option, which allows students to enroll in two (2) additional courses and write a synthesizing essay about their experience in the Liberal Studies program in lieu of a master's thesis, took effect July 1, 2010 and was adopted by 16 of the 23 students completing their degree this academic year. The program suspended applications in March

2010 and underwent a formal external and internal review during the summer and fall 2010. Discussion about the future of the MLS program is underway, with a formal plan expected by the fall 2011.

The MATHEMATICS MA program enrolled a record number of 28 students this past year, 8 of whom graduated in 2010-11 with an additional three (3) expected to do so in August 2011 and two (2) of whom were WFU undergrads who completed the program in one year. Austin Jones (Ken Berenhaut, advisor) was the recipient of the Melson Outstanding Master's Student award, making this the third such Math student (and Ken Berenhaut advisee) to win this award since its inception in 2006. Two (2) graduates will be going onto PhD programs; one (1) to a computational biology master's program, one (1) to WFU's Computer Science MS program, one (1) to work at Wells Fargo, and two (2) to math teaching positions. Students were supported with teaching or other forms of graduate student assistantships, research assistantships, and full or partial tuition-scholarships. A total of 36 students is projected for Fall 2011, comprising an equal number of first and second year students. Entering students are coming from undergraduate programs at UCLA, Marquette University, Pomona College, Sonoma State, UCSD, Simpson College, or institutions in China.

The graduate certificate program in MEDIEVAL STUDIES will have its second student graduate in August. This student received the department's Outstanding English Graduate Student award and has received a full scholarship to enter a prestigious PhD program at Notre Dame in the fall. Its alumni presented at a departmental graduate symposium this year and are continuing their PhD studies elsewhere. A well-attended graduate symposium on *The State of the Field in Medieval Studies* was held at WFU in the fall, with several alumni taking part.

In 2010-11 the MICROBIOLOGY AND IMMUNOLOGY program welcomed five (5) new doctoral students and graduated five (5) with their PhDs. A new faculty member joined the Department with interests in virology. Over the past year, graduate students received eight (8) travel awards for national and international presentations and four (4) were recognized for outstanding presentations. The Department maintains a high level of productivity with graduate students contributing to over a dozen publications.

MOLECULAR AND CELLULAR BIOSCIENCES (MCB) is a new interdisciplinary graduate track that was created to provide students with opportunities to choose from among over 100 mentors whose research spans basic and translational fields of cutting-edge molecular and cellular biology. Graduate programs within the MCB track enable students to earn a PhD in *Biochemistry and Molecular Biology*, *Cancer Biology*, *Microbiology and Immunology*, *Molecular Genetics and Genomics*, *Molecular Medicine and Translational Science*, or *Molecular Pathology*, as well as a Certificate in *Structural and Computational Biophysics*. Central to MCB's development was the creation of an integrated curriculum and recruiting process. The curriculum was restructured such that, in their first year, MCB students will complete a short course in analytical skills followed by a two-semester core course whose first semester examines macromolecular structure, synthesis and function, gene expression and genetics and then whose second semester addresses cell structure, cell communication, organ systems integration, physiology and pathology. MCB students will also select three (3) program-specific electives from an array of 15 courses, and explore a range of research opportunities by participating in three (3) research rotations, each in a different MCB laboratory. These rotations will introduce the students to new techniques and guide their selection of a graduate program and dissertation research advisor. As second year students they will complete individually tailored, program-specific requirements for their doctoral program. The recruiting process was altered such that faculty representatives from all seven (7) programs worked together to review nearly 200 applications, select 81 highly qualified applicants for

interviews, and make 43 offers to the best and brightest without regard to programmatic preferences. With the able assistance of Lisa Canada -- the new MCB Track administrative assistant who adroitly managed the travels plans, interview schedules, and faculty evaluations -- the entire process ran quite smoothly. This cooperative approach yielded an outstanding class of 24 new students from across the nation with bachelor's and, in many cases, master's degrees in biology, chemistry, and biochemistry who will join the track in August 2011. MCB students will have a designated study area in Coy C. Carpenter Library during the fall term. We eagerly await the move to the new Wake Forest Biotech Place in spring 2012 where study space and state-of-the-art classrooms will enhance their graduate education.

During the 2010-11 year, the MOLECULAR GENETICS AND GENOMICS (MOGN) PhD program housed 22 graduate students and involved 82 faculty from nine (9) basic science and six (6) clinical departments on the Bowman Gray campus and three (3) basic science departments on the Reynolda campus. Ten (1) students completed the requirements for the PhD, including one (1) from the MD/PhD program who has rejoined the MD class to complete his clinical training. This student received the Armed Forces Institute of Regenerative Medicine Burn Repair Conference Award for his revolutionary method for applying and growing replacement skin from stem cells. Five (5) PhD graduates will further their careers as postdoctoral fellows at UNC Chapel Hill, Washington University in St. Louis, NIH (NCI), University of Colorado Denver, and the Texas Biomedical Research Foundation in San Antonio. One (1) PhD graduate who entered our program as a physician from Thailand will return to Mahidol University, Thailand with her newly-earned PhD as an assistant professor to continue her biomedical research and clinical practice. This student received the Outstanding Research Award for an Individual in Training from American Society for Reproductive Medicine. Two (2) students received WFU Graduate School Alumni Student Travel Awards to attend the American Association of Cancer Research, American Society of Human Genetics, American Society for Reproductive Medicine, and other national meetings.

MOLECULAR MEDICINE AND TRANSLATIONAL SCIENCE MS and PhD students were active with nine (9) making presentations at 14 national, international or regional meetings and contributing to 19 publications, eight (8) of which as first authors. Faculty made 36 presentations at national, international or regional meetings and authored 51 peer-reviewed publications. Program accolades included one (1) student's receipt of two (2) extramural grants, one (1) student's receipt of a Graduate School Alumni Student Travel Award, the success of its four (4) graduates who are going onto postdoctoral positions elsewhere, a faculty member's receipt of two (2) patents, the inauguration of the MMTS Teaching Excellence Award given to Michael Seeds, and being ranked as sixth among 48 programs nationally by Academic Analytics in terms of its numbers of grants, publications, citations and awards.

MOLECULAR PATHOLOGY PhD students continue to excel in the categories of awards, presentations, and publications. Three (3) made presentations this spring at national or international meetings: one (1) received a travel scholarship to present data at the Lipid Biology and Lipotoxicity Keystone Symposium in Kerry, Ireland; another to present at the 4th Annual Proteins and Vaccines Congress in London, England; and the third won a Travel Award for Young Investigators to present her data at the Arteriosclerosis, Thrombosis and Vascular Biology 2011 meeting in Chicago, IL. Two (2) students received their PhDs and are moving onto postdoctoral fellow position. In addition, 12 students were co-authors on one or more journal articles published this year. The Molecular Pathology faculty continues to provide national leadership as members of editorial boards or directors of national meetings. One of its members (Mark Brown) obtained a new AHA grant and was selected as one of

four finalists for the AHA Irvine H. Page Award. The Molecular Pathology program was ranked as tenth nationally among 57 pathology graduate programs by Academic Analytics based on four categories of productivity (grants, publications, citations and awards).

The NEUROBIOLOGY AND ANATOMY PhD program together with other faculty were active in reorganizing their efforts into a single Neuroscience “track” (see below). Two (2) continuing students received travel awards sponsored by Fine Science Tools to attend the upcoming annual meeting of the Society for Neuroscience, one (1) received a travel fellowship to attend the prestigious 2011 Gordon Research Conference on Eye Movements, and one (1) a travel award from Elsevier/Vision Research that was presented at the 2011 Annual Vision Sciences Society Meeting. This later is highly competitive, with nearly 150 senior graduate students and postdoctoral fellows applying annually. This year’s two (2) PhD graduates had recently finished medical school and were matched with highly competitive residency programs at Massachusetts General Hospital and the University of California San Francisco. Departmental faculty received the WFU Medical School’s Teaching Excellence Award (Henkel), the Class of 2014 Basic Science Teaching Award (Henkel), and the Class of 2011 Basic Science Teaching Award (Riddle). A number of outside speakers provided seminars, including Charles E. Connor from Johns Hopkins University and Barbara Shin-Cunningham from Boston University.

The NEUROSCIENCE program is excited about the implementation of a new Track that will now comprise the current Neuroscience, Neurobiology and Anatomy, and Physiology and Pharmacology neuroscience students. A total of 78 applications were received for this first recruitment season and has resulted in the largest incoming class (14) to date, comprised of 11 students entering the PhD program, 2 MD / PhD students, and one (1) MD resident seeking a PhD. Neuroscience students actively participated in lectures, conferences, and national meetings with 10 attending the 2010 annual meeting of the Society for Neuroscience in San Diego. One (1) was recognized as a nominee to the Lindau Meeting of Nobel Laureates, two (2) as recipients of the Mary A. Bell Poster Award, three (3) with best poster or runner-up awards at the WFU Graduate Student/Postdoc Research Day Poster, two (2) with alumni student travel awards, and one (1) with the Michael D. Hayre Fellowship in Public Outreach award. In addition, three (3) submitted National Research Service Award (NRSA) pre-doctoral proposals, and three (3) are current recipients of such NRSAs. The neuroscience T32 training grant was recently renewed, giving the program a good mixture in terms of student support. While regretting the retirement of long-time administrative assistant Jody Dedo, the program welcomes her replacement, Carla Sharpe, and is looking forward to operating within the administrative structure provided by the new Tracks as it will enhance interactions between students and faculty as well as aid in recruiting the highest quality students.

The PHYSICS department welcomed 10 new students and a new faculty member, Sam Cho, in the fall. PhD-student successes included Ivan Azarov’s receipt of the Melson Outstanding Doctoral Student Award (Dany Kim-Shapiro, advisor), making him the third Physics student to receive this award; a Silver Award to Joel Grim for his presentation at the Materials Research Society meeting in San Francisco; Qi Li’s internship at Lawrence Berkeley labs; and Jason Bates’ funding for travel to Mexico, Poland and a study period in Taiwan. The three (3) graduating students secured faculty or prestigious post-doc positions, and the one (1) MS graduate will continue in the PhD program here. Faculty and students published 33 articles in high-impact journals of which 19 were co-authored with graduate students; gave 75 presentations at conferences; and received a patent (Fetrow), provisional patents (Salsbury, Thonhauser), or an invention disclosure (Williams). Physics faculty continued to attract major funding, receiving over \$1.97M in research grants this year with major grants being obtained from the NSF (Jurchesu), NIH (Kim-Shapiro), the National Nuclear Security Agency (Williams), the Melinda

and William Gates Foundation (Macosko), and the North Carolina Biotechnology Center (Guthold, Bonin, Macosko). The faculty received further distinction with the receipt of the 2011 Excellence in Research Award (Salsbury), the Ranlet and Frank Bell Jr. Fellowship (Thonhauser), a Ralph E. Powe Junior Faculty Enhancement Award from Oak Ridge National Laboratories (Jurchescu), and a Kavli Institute for Theoretical Physics (KITP) Scholar award and the Departmental Excellence in Teaching award (Thonhauser). Faculty are serving as the Director of the new Translational Science Center (Kim-Shapiro), Associate Director in the Renewable Energy Research Center (Williams), and were recognized as one of the Triads 50 most influential people for 2010 (Carroll) or for their innovative middle-school science teaching program (Jed Macosko and WFU alumnus Anthony Pecorella) at the White House's inaugural National Lab Day on May 12, 2010. Several faculty were active organizing conferences (Jurchescu, Williams, Thonhauser, Holzwarth) and all continue to be engaged in extensive collaborative research inside and outside the department.

This was the 47<sup>th</sup> year of graduate instruction for the MA PSYCHOLOGY program. All 11 full-time students admitted in August 2009 will receive their degree in the 2010-11 AY or summer 2011, and all 11 full-time students admitted in August 2010 will continue in 2011-2012. A total of 13 outstanding students were selected from 146 applicants for fall 2011 admission. We are proud of our alumni; a 2007 graduate will enter a PhD program next fall at the University of Florida and all five (5) 2011 graduates who applied were accepted in high-ranking Ph.D. programs for next fall. All students presented their first-year research at departmental colloquia and five (5) presented at the annual Graduate Student Research Day, with one (1) receiving top honors in the Social Sciences category. A total of 20 current or former students made 28 presentations at professional meetings and 15 co-authored articles with faculty members. The Department as a whole achieved a marked increase in research funding, with faculty serving as PIs or Co-PIs on nine (9) extramural awards from the ARA, NIH, NSF, Templeton Foundation, or UNC-Greensboro. Important collaborations exist with faculty in the WFU departments of Neurobiology and Anatomy, Philosophy, Physiology and Pharmacology, and Psychiatry as well as at other institutions. The program continues to be recognized as one of, if not the best, general MA program in the country.

The MA program in RELIGION graduated five (5) students, three (3) of whom have been accepted at PhD programs elsewhere (Duke, Drew) and one (1) who will pursue a master's degree at Yale. The faculty had a successful year as well, having four (4) books or edited volumes published or submitted; authoring nine (9) peer-reviewed articles, two (2) book chapters, and three (3) book reviews; giving 14 conference presentations and six (6) invited lectures; hosting five (5) conferences; and being the PI for a major NEH \$500k grant. Illustrating the broad range of faculty interests, the conferences hosted were titled *Health as Metaphor and Reality in Asian Perspectives*, *The Future of Coptic Studies*, *Southern Silences*, *American Indian Land Rights and Religious Freedoms*, and *Teaching Biblical Studies*, and were supported from East-West Center (Van Doorn-Harder), Wellcome Trust (Wiethaus), or internal funds. New courses were introduced as part of the effort to revamp the graduate program and discussion is continuing as to how best to position this program in relation to the Divinity and Graduate Schools. The faculty continued to carry out an impressive range of service activities as the new Humanities Institute; the faculty leader for the Center for Religion, Law and Ethics; members of the Richter Graduate Committee and Graduate Honors Council; and as editors, board members, fellows, or reviewers for numerous professional, service or other organizations.

The certificate program in STRUCTURAL AND COMPUTATIONAL BIOPHYSICS (SCB) had a busy year with three (3) students graduating -- the first two (2) Math students and a second Physics student. Seminars at the Foothills Brewery were presented by Lindsay Comstock (Chemistry), Larry Daniel and

Leslie Poole (Biochemistry), Paul Paula (Computer Science), and Sam Cho (Computer Science/Physics). We extend a special thanks to Leslie Poole for her efforts in organizing the seminar series for the second year in a row.

### B. Joint Degree Programs

The MD/PhD program was pleased to inaugurate the Lou Argenta Scholars Program with the receipt of a \$2M gift from the Department of Plastic Surgery. Three (3) MD/PhD students – Sandy An, Mitchell Ladd, and John Wren – were named Lou Argenta Scholars, with a new award being made each year to a MD/PhD student for a stipend and research-related support during his/her PhD period. Six (6) students are currently in the MD/PhD program, including two (2) new students who will join in the fall and are, respectively, the first WF College graduate and a Florida State graduate. Students made presentations and won numerous prizes at the American Diabetes Association, American Society of Human Genetics, American Physician Scientist Association, Armed Forces Institute of Regenerative Medicine, Tissue Engineering and Regenerative Medicine International Society conference, and Graduate School Research Day. Nine (9) publications appeared or are in press featuring the student's work. Three (3) students – Sandy An, Jason Bonomo, and Walter Wiggins – received independent funding from the NIH or WFUSM in support of their work. Two (2) students completed the program in 2010-11 and will enter a residency program in pathology at the University of Michigan or an internship to be followed by a residence in radiology at the University of California San Francisco.

The MA IN COUNSELING / MDIV PROGRAM graduated three (3) students in May. Two (2) MA/MDiv students will be second year counseling students in 2011-2012, and two (2) more dual-degree students will join the incoming counseling group in August 2011.

The MA IN RELIGION / JD PROGRAM graduated its first student this year. Other students have applied or expressed interest but, at the moment, no others are active in the program.

The PHD/MBA PROGRAM began in 2000 as the nation's first and has since graduated nine (9) 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. Of note, the two (2) most recent graduates have taken positions using their business training in the newly established Wake Forest Baptist Health Center for Innovation and Entrepreneurship (Carla Lema-Tome) or the startup company KeraFast (Zachary Cary). Other 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 new Certificate in Science Management program and as PhD students increasingly seek careers in industry, government or technology management.

### C. Highlights of Graduate Student and Postdoctoral Fellow Associations

The BLACK GRADUATE STUDENT ASSOCIATION (BGSA) spent much of the 2010-2011 school year revamping the organization to make it more accessible and beneficial for all members of the Wake Forest community. As a result, meetings, programs and leadership will now exist on both the Reynolda and Bowman Gray campuses. With the addition of Dr. Mesia Steed as the BGSA advisor, better relationships are also being fostered with the postdoc community via networking events and panel discussions. In addition to the cultural events and programs that are open to all members, the BGSA

facilitated Bowman Gray campus- and hospital programs such as Black History Month's "African-Americans in Science" symposium and the Wake Forest Black Alumni Association's reunion event.

The BRAIN AWARENESS COUNCIL (BAC) involved WFU 94 graduate, medical and undergraduate students; postdoctoral fellows; faculty and staff. A nine (9)-person leadership team organized monthly visits to six (6) schools that reached 691 K-12 students. During Brain Awareness Week in March, eight (8) separate events were held at various locales including SciWorks and the Children's Museum that collectively reached over 1000 persons. Four (4) other outreach programs were continued; namely, "Brain Academy" that provided local teachers with neuroscience materials for classroom teaching, "Neuroscience and a Movie" in which a movie portraying a neurological disorder was shown every other month followed by a question and answer session, "Senior Living-Industry Visits" that offered instructional presentations concerning brain function and common pathologies to professionals working in assisted-living facilities, and a "Lending Library" for making educational materials available to middle- and high-schools in our region for specified periods of time. Additional improvements in our website, creation of social networks, and use of evaluation materials are planned for the coming year.

The GRADUATE STUDENT ASSOCIATION (GSA) is made up of all students enrolled in any program of study at the Graduate School of Arts and Sciences with two (2) being elected to serve as co-chairs, one from each main campus, and as other officers. This year Samuel Amoah (Microbiology and Immunology) and Brittany Wyche (Counseling) served as co-chairs in the fall and Samuel Amoah as the sole co-chair in the spring, assisted by Daniel Stovall (Cancer Biology) as Secretary. The GSA organized a food drive in conjunction with the Business Schools in which cans of food were collected for and distributed by the local Salvation Army, the annual "Christmas Cheer" event held in conjunction with the Winston-Salem Jaycees, and the annual "Spring Fling" co-sponsored by the Medical School and the BGSA. Aided by our Professional Development Chair, Zachary Cary, these and other activities exposed graduate students to various professional development opportunities such as the annual WFU Schools of Business Biotechnology Conference and Case Competition.

The POSTDOCTORAL ASSOCIATION (PDA) is open to all postdocs on any WFU campus. Its mission is to foster a sense of community; provide resources for career and personal development; and serve as a means for postdocs to be represented on campus, university and local community groups. Starting the Spring 2010, the PDA was led by executive board members Mesia Moore Steed and Megan Rudock (co-chairs), Amanda Cox (secretary), and Carla Lema-Tome (treasurer). Board members are key advocates for postdoctoral concerns, support, training, and leadership development. Our goal during the 2010-11 year was to strengthen the PDA's support network and implement the group's ideas for ways to enhance the training experience. Departmental representatives were selected and meetings held on topics such as the new Innovation and Entrepreneurship Initiative being undertaken by WF Baptist Health, "Navigating the Academic Seas", "Transition to Industry", and the "State of the Postdoctorate". PDA members served on the selection committee for the OPA Excellence in Mentoring Award that was initiated this year, the Professional Development Advisory Committee (PDAC) and the Office of Postdoctoral Affairs (OPA) Steering Committee, as instructors for the Responsible Conduct of Research courses Grad 713-714, and as presenters and judges at Graduate Student and Postdoc Research Day. The PDA sent a representative to the 2011 National Postdoc Association Annual Meeting.



### **3. 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.
- Faculty commitment as illustrated by widespread participation in our programs and Graduate School activities.
- Strong financial support as illustrated by the high proportion of students receiving full or partial tuition scholarships; the raise in stipends experienced this year by all students; the new endowed fellowship for the MD/PhD program; and the Graduate School's increased funding for student awards, recruitment, and other program activities.
- Support for the development of the whole person as illustrated by our Responsible Conduct of Research (RCR) program and the large amount of community service provided.
- Career success as indicated by the acceptance of our students into strong doctoral or postdoctoral programs, and their receipt of jobs in industry, government, or community agencies.

#### **B. Overall weaknesses**

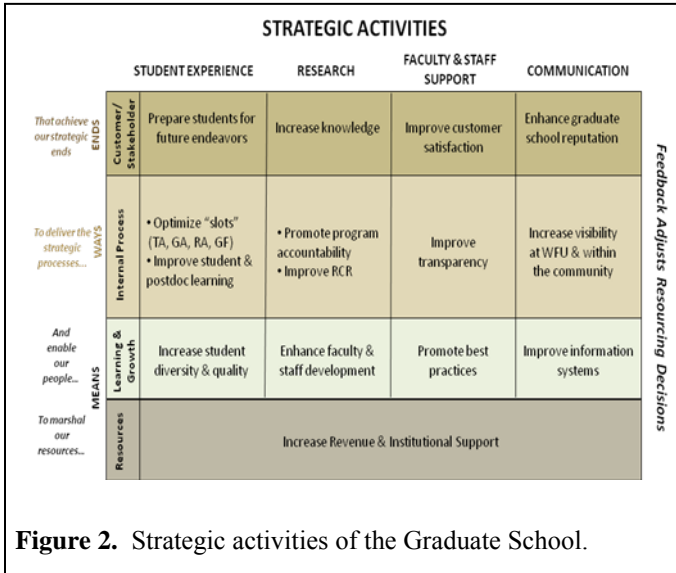
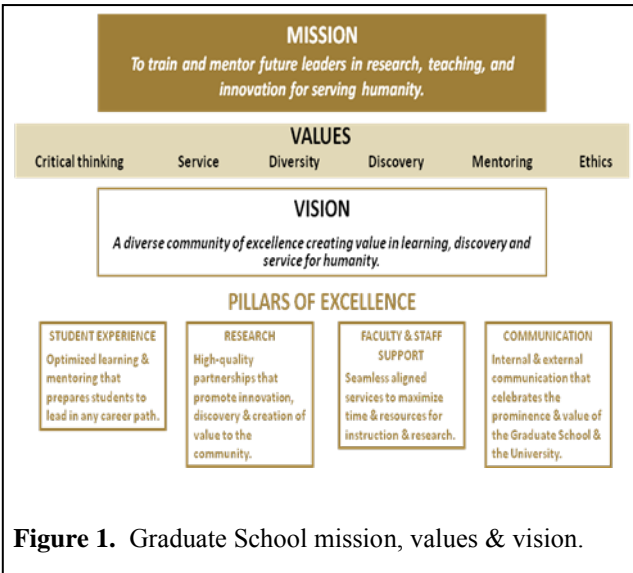
- Below desired levels of diversity among our graduate students and faculty.
- A tendency for the Graduate School to be seen as a part of either the College or the Medical School, and a consequent lack of visibility of the Graduate School.
- Limited areas in which PhD training is available, which reduces the opportunities for graduate programs to generate knowledge and advance WFU's distinction.
- Limited linkage of instructional technologies between campuses.
- Limited fundraising assistance from the Advancement/Development Offices.
- Lack of comprehensive mechanisms for tracking student career success.

### **4. SCHOOL'S GOALS AND OBJECTIVES**

#### **A. Key Goals for 2010-11 in Relation to the WFU Strategic Plan**

In relation to WFU's strategic plan to *build excellent programs of nationally- recognized value*, the existence of the Graduate School is a key element for attracting faculty whose work creates nationally-recognized programs. This is because graduate students provide significant help to faculty in carrying out their teaching and research responsibilities, but also because graduate programs are a crucible for stimulating the ideas required for solving future problems. WFU's second strategic goal to *open doors for educational opportunity* relies on the activities of the Graduate School and other units for teaching graduate and undergraduate students, optimizing their learning environment, and enabling faculty member's research efforts. The third plank in the WFU Strategic Plan to *develop the whole person* requires broad access to the range of education, research, and service activities present across all of WFU's schools or colleges. The Graduate School plays an important role in this and the fourth element of the WFU Strategic Plan, to *promote connections between the liberal arts and the professions*, given that the faculty of the Graduate School actively link all the schools and colleges of the University. Indeed it is the Graduate School that makes us as a University.

At our Fall 2010 Retreat, we developed a “Balanced Score Card” for clarifying our mission, values and



vision statements, and for tracking the strategic activities that promote our four goals or pillars of excellence. Figure 1 contains these statements and Figure 2 summarizes our strategic activities.

Our first goal is to provide **excellence in student experience** so as to create an optimized learning and mentoring experience that prepares students to lead in any career path. Our programs encompass many areas but in each, we seek to optimize the allocation of financial aid and maximize student-learning experiences. An important means we employ is to uphold high academic standards and promote activities that will ensure recruitment of the very best, diverse students. For our second goal, **excellence in research**, we promote high-quality partnerships for advancing innovation, discovery and the creation of value for the community. One of the ways we do this is to ensure program accountability and assist with various kinds of common activities such as training in the responsible conduct of research (RCR). For our third goal, **faculty and staff support**, we aim to improve customer satisfaction – whether the “customer” is the student, a faculty member, a University administrator, or a member of the community at large – by providing seamless, aligned services to maximize time and resources for instruction and research. Such support includes providing financial resources to our programs in the form of student stipends, tuition scholarships, and essential program activities; administrative services and other forms of support to the faculty; and equitable salaries, and access to best practices for our Graduate School staff. For our fourth goal, **communication**, we seek to enhance the reputation of the Graduate School by making the achievements of our graduate programs, faculty, and students as visible as possible. Further details follow concerning these activities in our review below.

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

The Graduate School has engaged in a broad range of activities to further its mission and the University’s strategic plan over the past year. Table 1 summarizes these activities in relation to our four goals or pillars of excellence by first discussing our Graduate School operations and then our recruiting/program publicity and professional development activities.

<b>Table 1.</b> Actions initiated in 2010-11 to advance Graduate School goals.				
ACTIONS INITIATED	GRAD SCHOOL GOALS			
	Student experience	Research	Faculty & staff support	Communication
<b>1. General Graduate School operations:</b>				
a. Created “Balanced Score Card” for improving transparency and coordinating services.	X	X	X	X
b. Implemented new “tracks” for interdisciplinary PhD programs.	X	X	X	X
c. Developed new degree and certificate programs.	X	X	X	X
d. Increased number of TA, GA, RA positions.	X	X	X	
e. Increased all graduate-student stipends.	X	X	X	
f. Improved budget-tracking procedures.	X		X	X
g. Developed GPD/Track Director Guidelines.	X	X	X	X
h. Monitored percent, time to degree completion.	X	X	X	X
i. Improved operating efficiency.	X	X	X	X
j. Completed graduate-faculty recredentialing.			X	X
k. Celebrated graduate-program achievements.	X	X	X	X
l. Promoted fund-raising for graduate programs.	X	X	X	X
<b>2. Recruiting/program publicity:</b>				
a. Initiated Spelman Summer Fellows program.	X	X	X	X
b. Attended more events and created new materials.	X		X	X
c. Increased numbers of minority applicants.	X	X	X	
d. Improved application process and for making Hearst awards.	X		X	X
<b>3. Graduate student and postdoctoral fellow professional development:</b>				
a. Provided TA-training and >103 hr professional development workshops.	X	X	X	
b. Oversaw Richter Scholars program.	X	X		X
c. Facilitated submission of training grants, individual fellowships.	X	X	X	
d. Enhanced recognition and professional development of postdoctoral fellows.		X	X	X
e. Improved internship procedures.	X			X
f. Formed council of graduate student organizations.	X		X	
g. Planned student survey, code of conduct.	X		X	

General Graduate School operations. We began the fall semester with a Graduate School Retreat to welcome our new Associate Deans and staff members. With Associate Dean Randy Rogan’s move to the College Dean’s office and Linda McPhail’s return to the faculty, Brad Jones joined the Graduate School administration as Associate Dean for Recruiting and Program Publicity and Dwayne Godwin

moved from the position of Assistant Dean and Director of the Office of Postdoctoral Affairs to Associate Dean for Graduate Student and Postdoctoral Fellow Professional Development. Our new staff members are Sarah Lafferty in our Reynolda office (replacing Wanda Duncan, who moved to a MLS program administrative position) and Tina Payne in our Bowman Gray office. We invited Randy Randolph, Director of Strategy and Innovation for the US Army Medical Command and Office of the Army Surgeon General, to join us and help develop a “Balanced Score Card” for improving transparency and coordinating services. A productive daylong session was held during which we reworded our mission, values and vision statements so as to achieve new crisper versions (Figure 1) and to chart the strategic activities by which we are reaching our four pillars of excellence (Figure 2). We implemented new “tracks” for interdisciplinary PhD programs, an effort that represented the culmination of over two years’ work and fulfilled recommendations made 18 years ago. This process entailed the convening of a Doctoral Task Force in the Spring 2009 whose recommendations were discussed with the faculty at large via Town Hall, Graduate Program Director, Reynolda Chairs, and Bowman Gray Faculty Executive Council meetings. The final recommendations were approved at the April 2010 Graduate Faculty meeting. The outcome of this process was to transform our existing 13 PhD programs into seven (7) “tracks”, each reflecting unique research and training areas in the physical, biological, and biomedical sciences. The change was intended to better accommodate student needs, increase the opportunities for faculty collaboration, and provide a renewed vision of excellence for graduate education at Wake Forest. To accomplish these changes, we formed implementation committees in June 2010 comprised of faculty from both campuses. These groups worked over the summer and fall to plan each track’s curriculum, recruiting process, and governance structure. To date, tracks 1-3 (Physics, Chemistry and Biology) and 7 (Biomedical Engineering) remain relatively unchanged but substantive changes have occurred in Tracks 4 (Molecular and Cellular Bioscience), 5 (Integrative Physiology and Pharmacology) and 6 (Neuroscience). These include:

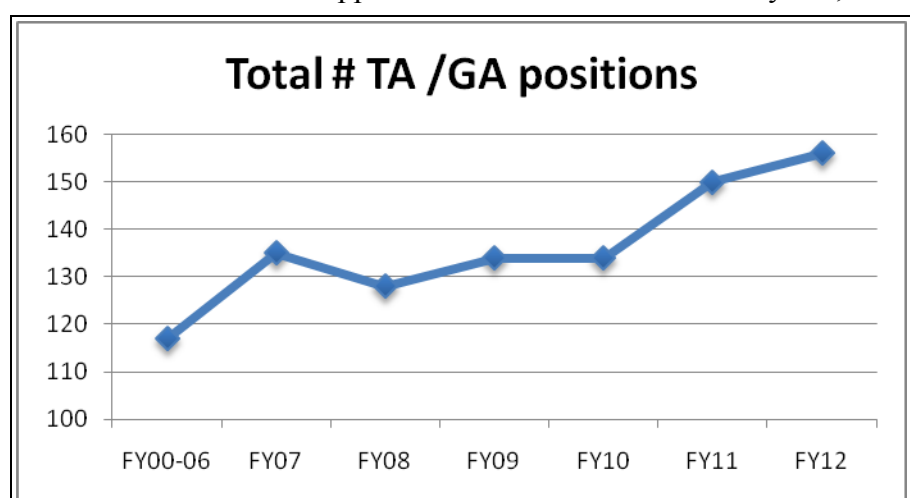
- Adopting new names – Molecular and Cellular Bioscience, Integrative Physiology and Pharmacology, and Neuroscience (as a single unified program, rather than multiple overlapping ones).
- The creation of a common recruiting process that accommodates both the needs of students who know the area in which they wish to specialize and those not yet certain of their niche.
- The formation of a core curriculum, a range of electives, and the revision of existing courses to eliminate duplication and facilitate access by students requiring only a portion of the course.
- The creation of a governance structure that assures the faculty an active voice in choosing the track director and members of key committees.
- Directing funds from the Graduate School’s budget to support a portion of the Track Director’s salary and, depending on the track size, the salary of a full- or part-time administrative assistant.
- Allocating funding for general program or track activities on an equal, per-student basis.
- Moving the first deadline for receipt of applications to Dec 15<sup>th</sup> and adjusting the recruiting weekend(s) to maximize our ability to attract excellent, diverse students.
- Completing faculty pages for the interdisciplinary tracks so that prospective as well as current students can have the most up-to-date information available for choosing their area of study.

These efforts entailed considerable effort on the part of the faculty and staff, who are to be complimented for all they have accomplished.

We helped develop several new degree and certificate programs. The first students enrolled in the new MA and MFA programs in Documentary Film co-directed by Mary Dalton and Sandy Dickson. A new MA program in Interpreting and Translation Studies developed by Ola Furmanek and Sally Barbour was

approved, and will begin to admit students in the Fall 2011. An internal and external review was conducted for the MA in Liberal Studies (MLS) program that will lead to improvements in that program. Existing programs began to admit larger numbers of tuition-paying students. A new certificate program in Science Management (SCM) was developed by Dwayne Godwin, Len Preslar and others in order to provide targeted coursework and training for master's and PhD students seeking management training for career positions in industry as well as academia. This 15-hr certificate program was launched at an information session attended by Reynolda and Bowman Gray graduate students and postdoctoral fellows in May 2011, and will matriculate its first students in Fall 2011. Co-directors Mark Hall and Nancy King introduced two new areas of specialization for the Certificate Program in Bioethics (Clinical Bioethics and Biomedical Research Ethics) to take advantage of faculty expertise and new elective offerings. Ideas for developing new areas of PhD specialization in global nutrition, informatics and other areas were discussed at Graduate Council or other meetings, and are expected to be taken up again in the coming year.

We increased the number of teaching assistantships (TA) and other kinds of graduate-student assistantships (GA) funded through the Graduate School in the past year, which was due in part to the ~10% increase in College enrollment. As shown in Figure 3, the number of TA or GA positions in 2000-06 ranged from 111-123 and then increased sharply to 135 in FY07. A slight dip occurred in 2008 at the time of the economic downturn, but then has risen steadily to reach levels in FY11 that were 11% (15 positions) above 2007 or in FY12 that are projected to be 16% (21 positions) above FY07 levels. No increase in internal support has been received in recent years; hence this 11-16% increase in TA/GA



**Figure 3.** Number of TA and GA positions at Reynolda has grown steadily, increasing above FY07 levels by 11% in FY11 and 16% in FY12.

for the third year in a row.

positions has been funded from net tuition revenue or reallocations within the Reynolda campus Graduate School budget. Because stipends for Reynolda campus master's program students had not risen since 2001-02 and PhD stipends were below national norms, we increased stipends for all Reynolda campus students by 5% or more for the 2010-11 year. We also increased stipends for PhD students in Bowman Gray campus programs in 2010-11

With the aid of Dixie Ross from WFU's Financial and Accounting Services, we improved our budget-tracking systems so that we can now project net tuition revenue and expenses in real time. We adopted new reporting practices that enable us to monitor the percent of students who complete the program in which they matriculate and the time-to-degree completion. Prospective students use this information in deciding where to attend graduate school and we will use it as one factor in making budgetary decisions. Dean Moore is serving on a Council of Graduate Schools' advisory committee for an Alfred P Sloan Foundation-funded nationwide Master's Degree Completion Study, which will provide valuable comparative data.

The Graduate School's operating efficiency was improved this past year by the efforts of Will Clarke and staff member Beth Whitsett to add new functions to our website. We began using electronic tools such as Constant Contact™ for preparing weekly or biweekly email digests for Graduate Program Directors, Survey Monkey™ for the recredentialing our graduate faculty every five (5) years as required by our bylaws and for students to submit exit surveys. We helped to acquire electronic tools for the coming year -- Curvita™ and Apply Yourself™ -- for continuing to improve our operating efficiency.

We celebrated our graduate program's strengths and student accomplishments with several events.

- We hosted the North Carolina Conference of Graduate Schools (NCCGS) annual meeting in Winston-Salem on November 4-5, 2010 at which Dean Moore as NCCGS President presided. After welcoming remarks by President Hatch, a plenary session was held on "The Path Forward for Graduate Education" at which James Wimbush, Dean of the Indiana University Graduate School provided an "Overview and Anticipated Outcomes"; Alan Kendrick and Douglas James, Assistant Deans at the Duke University Graduate School addressed "The Changing Landscape of Careers for Graduate Students"; and Patrick Brandt, Director of Biomedical Graduate Training at UNC-Chapel Hill talked about "Chapel Hill's Approach to Recruiting, Retaining, and Enabling Young Scientists from Under-Represented Groups". Special staff sessions featured Laura Hamilton who talked about "Dealing with Difficult People (students, faculty and yes even deans!)" and a Best Practices discussion where staff from each University talked about an innovative solution for dealing with administrative problems. The deans' special session featured presentations by Les Boney, UNC system Associate VP for Economic Development, Research, Policy and Planning and Steve Susalka, Assistant Director Office of Technology Asset Management for WFU Health Sciences on "From Innovation to Application".
- The 11<sup>th</sup> Annual Graduate Student and Postdoctoral Fellow Research Day was held on March 22 in Bridger Field House with record or near-record numbers of students and faculty in attendance. An impressive range of projects was presented, from which the best poster prize winners and runners up for the various divisions were:
  - Analytical sciences: Tanya Pinder (Chemistry) winner, Jeremy Ward (Physics) and Michael Crouse (Computer Science) runners-up.
  - Basic sciences: Lawrence Blume (Physiology and Pharmacology) winner, Bhavani Krishnan (Neuroscience) and David Burmeister (Physiology and Pharmacology) runners-up.
  - Integrative sciences: Crystal Vechlekar (Neuroscience) winner, Lauren Pace and Sandeep Mannava (both Neuroscience) runners-up.
  - Social sciences: Kara Clissold (Psychology) winner, Jon Bougher (Documentary Film) and Tiffany Waddell (Liberal Studies) runners-up.
  - Translational sciences: Jennifer Jordan (Biomedical Engineering) winner, Kerry Danelson (Biomedical Engineering) and Austin Stone (Molecular Medicine) runners-up.
  - Postdoctoral Fellow: John Johnson (Microbiology and Immunology) winner, Sarman Hindo (Chemistry) and Johannes Plate (Orthopedic Surgery) runners-up.
- We organized the first-ever NC Graduate Education Week in order to demonstrate the importance of graduate education to the state's economy. Led by Dean Moore, the NCCGS Deans engaged Governor Perdue to declare May 22-28 as Graduate Education Week and May 25<sup>th</sup> as Graduate Education Day. A proclamation stating that "Graduate education is vital to the scientific, cultural and economic needs of local, state and global communities and is critical to discovery and creativity" was read in both legislative chambers, and graduate students and deans from 19 of the North Carolina's 26 graduate schools came to Raleigh on May 25<sup>th</sup> to celebrate

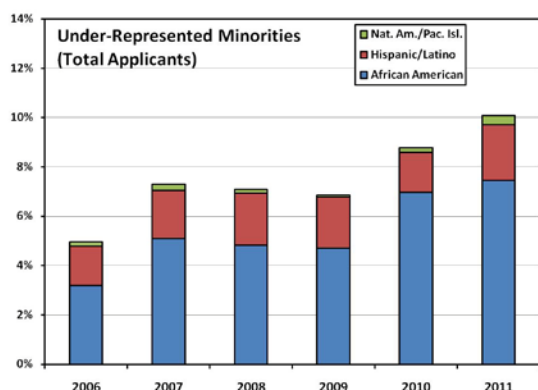
Graduate Education Day. The WFU students participating were Kerry Danelson (Biomedical Engineering, Joel Stitzel advisor) and Tanya Pinder (Chemistry, Mark Welker advisor). They presented their research on sports-related brain injuries and on developing a new prostate cancer drug, respectively, in a poster session and met individually with state legislators. The day's events closed with a plenary session at which Dean Moore, Dean Larick (NC State), Dean Matson (UNC-CH), and Representatives Tim Moore and Jonathan Jordan spoke about the importance of graduate education for improving the state's economy and societal well-being. These and other accomplishments of the WFU Graduate School's programs, faculty and students were celebrated in the Newsletter that we began in the Fall 2009. A third issue was published for the Fall 2010 and a Spring 2011 issue will appear shortly.

We promoted fund-raising for our graduate programs. To celebrate the receipt of a \$2M gift from the Department of Plastic Surgery to fund an endowed Lou Argenta Scholars Program for supporting MD/PhD students during their graduate-program years, the Graduate School organized a celebratory dinner at the Piedmont Club for Dr. Argenta and his family. Discussion continued with the Advancement and Development offices as to how to promote graduate programs in the University's upcoming capital campaign. Comments from students receiving support from our "Alumni Student Travel Fund" were solicited and used in a mailing to 3832 (3,084 Reynolda, 748 Bowman Gray) WFU Graduate School alumni and friends in an effort to increase giving to this important fund. Graduate students helped with the Development office's "Phon-a-thon" held June 21, 2011 in another effort to increase fund-raising for graduate programs.

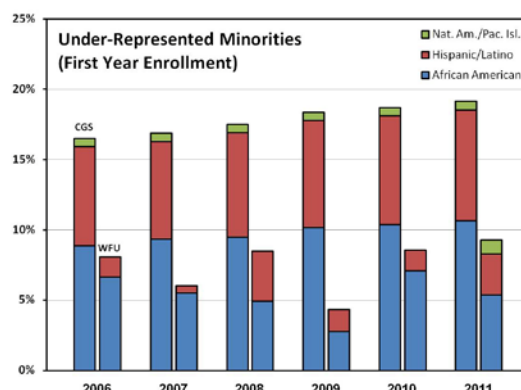
Recruiting and program publicity initiatives are vital for gaining the high quality, diverse applicants that we seek for our graduate programs. In his capacity as Associate Dean for Recruiting and Program Publicity, Bradley Jones began several new initiatives when he joined the Graduate School administration in July 2010. His first act was to coordinate a meeting with ~25 undergraduate women from Spelman College (Atlanta, GA) who were visiting graduate schools in our region. Under the former Associate Dean for Recruiting, Linda McPhail, graduate program directors were asked to propose new initiatives for increasing student diversity. Graduate Program Directors Ellen Kirkman (Math) and David John (Computer Science) both identified Spelman College as a key institution for creating partnership programs as it is one of the leading historically black colleges or universities (HBCUs) and serves women, who are under-represented in several science disciplines. Together with Erica Knight, Graduate Placement Coordinator at Spelman, and Barbee Oakes, Assistant WFU Provost for Diversity and Inclusion, we formulated plans for a Spelman Summer Fellows Program that would bring 10 undergraduates to our campus. This program has now begun with the arrival, in June 2011, of 10 Spelman women and one (1) from Hampton University with interests in the areas of chemistry, communications, english, obstetrics/gynecology, psychiatry, and psychology. The program is progressing splendidly. Suggesting that publicity from the summer program will increase diversity in our applicant pool, we had at least six (6) Spelman applicants this year, and one will join us in the fall of 2011.

Associate Dean Jones attended eight (8) fall recruiting affairs in 2010, five (5) more than in previous years, combining such trips with visits to top HBCUs. Institutions visited included: Bennett College, Fayetteville State University, Hampton University, Howard University, Morehouse College, North Carolina Agricultural and Technical State University, Spelman College, Tennessee State University, and Winston-Salem State University. To make our recruiting materials more attractive, we created a Graduate School brochure that listed all programs, a professionally designed banner, an I-pad based slideshow, and other recruiting materials.

Applicant qualifications were again very strong this past year as reflected by undergraduate grade-point average (GPA) or graduate record examination (GRE) scores. Since one of our strategic activities is to increase racial and ethnic diversity, we also pay particular attention to the number of under-represented minority (URM) applicants. The percent URMs (defined as African Americans, Hispanics, and Native



**Figure 4.** Percent URMs (URM) among all WFU Graduate School applicants for fiscal years shown.



**Figure 5.** Percent URMs among WFU vs. Council of Graduate School (CGS) enrollees for fiscal years shown.

Americans or Pacific Islanders but not Asian Americans, since they are no longer underrepresented in graduate education) has risen slightly over the past six (6) years, with the past two (2) years being the highest ever (Figure 4). However the minority composition of the students enrolling our graduate programs remains well below national norms (Figure 5). The figures summarized here differ from those presented in prior Annual Reports insofar as those figures included Asian Americans. Of note is that there is no difference between the Reynolda and Bowman Gray campuses in the URM figures when Asian Americans are no longer included: over the past six years, URMs represented 7.6% of Reynolda and 7.9% of Bowman Gray first-year students. In other words, the higher percentages of URMs at the Bowman Gray vs. Reynolda campuses seen in the past reflected a higher percent of Asian Americans in the predominantly biomedical Bowman Gray programs. The increase in the percent URM applicants is paralleled by a rise in the percent URMs offered admission, but clearly there is no consistent increase in the percent URMs accepting the offer and enrolling in our graduate programs (Figure 5). As we return to below, we think a major change in our recruiting practices is required to raise the percent URM appreciably. The Spelman Summer Fellows program represents one such effort but more clearly is required.

Other changes effected last year included improving the application and Hearst award processes. The Peoplesoft-based application system was upgraded to permit Graduate Program Directors and Graduate School staff to generate weekly summaries so that applicant status could be more accurately tracked. The time for processing applications was shortened so as that offers could be made to “top” applicants more quickly. Limitations, however, continued to plague this system. As a result and after evaluating the options available, we decided to adopt Apply Yourself™ for the coming year in order to further improve processing and support services. Funds from the William Randolph Hearst Foundation continue to provide an important means for supplementing other forms of financial aid and for enrolling top, minority candidates. We are grateful for the assistance provided by the WFU Advancement Office and the Hearst Foundation for the addition to the endowment supporting these awards, as this will permit us to increase the number of awards annually from six (6) to seven (7). For the process of making these awards, Associate Dean Jones carefully tracked minority-applicant status in every program



and followed up personally with the contacts established at graduate school fairs or HBCUs to encourage submission of applications. As program directors submitted requests for offers of admission, he compared the candidates' credentials with those of minority applicants, and suggested Hearst candidates. Once program directors submitted nominees, Associate Dean Jones authorized Hearst-fellowship offers, with ideally no more than one fellowship per program. As returned to below, we are planning to host a Diversity Day in November to which up to 100 minority applicants will be invited to visit our campus. This should enable us to identify the best Hearst candidates much earlier in the recruiting season and help us use the Hearst funds for attracting the best students.

Graduate student and postdoctoral fellow professional development. About 40% of the graduate students on the Reynolda campus serve as Teaching Assistants (TAs), which provides valuable support for undergraduate programs and experiences that enhance the graduate student's training as well. Last year, Associate Dean for Graduate Student Professional Development Randy Rogan planned a TA-training workshop for August 2010. With assistance from Dan Johnson from the Biology Department and Catherine Ross from the Teaching and Learning Center, the current Associate Dean for Graduate Student Professional Development Dwayne Godwin held this TA-training session before the start of the Fall 2010 semester. Topics covered included classroom management, special challenges for foreign-born TAs, grading practices, honor code requirements, and the distinctive but related missions of the College and the Graduate School. The workshop was well received by the graduate students with the evaluation forms indicating that the student's knowledge showed clear improvement about WFU Honor Code policies, TA responsibilities, grading challenges, cultural differences that could affect work with students, student services, etc. In addition the students gave the workshop high marks for exposure to a broad range of faculty and as a welcome to the campus. However during the course of the year, Graduate Program Directors indicated their wish to have more of the TA-training occur in program-specific contexts and so we have adjusted our plans for the August 2011 workshop accordingly.

Another of Associate Dean Godwin's graduate-student professional development activities was to provide over 103 hours of instruction. Workshops for Bowman Gray- and Reynolda-based students centered on topics such as making effective oral presentations, writing successful grants, manuscript preparation, conflicts of interest and career opportunities outside of academia. Guest speakers came from the NC Medical Examiners Office (Ruth Winecker), JK Associates (Robin L. Stromberg), and the Lasker Foundation (Maria C. Freire). Current or former graduate students (Zach Cary, Janel Suburu, John Graef) also participated, talking about their industry-related careers. Special workshops were offered to postdoctoral fellows through the Graduate School's Office of Postdoctoral Affairs. These included presentations by Jorge Cham (Piled higher and deeper comics) on "The Academic Stimulus Package;" Christine S. Grant (Associate Dean of Faculty Development, Professor Biomolecular Engineering, NC State University) on "Navigating Your Journey on the Academic Sea: A View from the Ship;" Dwayne Godwin, John Parks, and other WFU faculty on "Responsible practices in authorship" (co-sponsored with the Office of Research); Shobha Parthasarathi (Technology Development Director, NC Biotechnology Center) on "Industry Internship Programs for Postdocs;" Shane Crotty (Associate Professor, Vaccine Discovery Division, La Jolla Institute for Allergy and Immunology) on "The Famous Baltimore Affair: Lessons in Scientific Conduct;" and Catherine Ross, Dan Johnson and Allyn Howlett on "WFU Teaching Opportunities."

The Richter Scholars program provides support for independent study projects for graduate students in Reynolda Campus programs that require travel away from Winston-Salem and that promote life-changing, often international experiences. Procedures for making these awards were revised to enhance the clarity and rigor of the review process. An increased number of applications were received (15) and six (6) were funded. We are pleased at the high quality of these applications and the interest shown by graduate programs for ways to take further advantage of this novel program.

Associate Dean Godwin facilitated submission of training grants and individual fellowships. Successfully obtained were four (4) new and continuing predoctoral (F30) National Research Service Awards and six (6) postdoctoral (F32) National Research Service Awards. These awards join the 12 (T32) Institutional National Research Service Awards or “training grants” that help support graduate programs, yielding a total of over \$2.9M (Table 2). The T32 awards often support students from multiple programs, and thus enable our students to be exposed to interdisciplinary, team science in ground-breaking ways.

**Table 2. Current T32 funding in support of Graduate Students and Postdoctoral Fellows.**

Project Title	Institute	Project Number	Principal Investigator	FY Total Cost
NEUROSCIENCE OF DRUG ABUSE TRAINING PROGRAM	NIDA	5T32DA007246-19	CHILDERS, STEVEN R	193,998
LABORATORY ANIMAL & COMPARATIVE MEDICINE TRAINING	NCCR	5T32RR007006-34	CLINE, J. MARK	177,717
TRAINING GRANT IN QUALITY OF CARE AND OUTCOMES RESEARCH IN CARDIOVASCULAR DISEASE	NHLBI	5T32HL087730-03	GOFF, DAVID C	305,056
CVD EPIDEMIOLOGY TRAINING PROGRAM	NHLBI	5T32HL076132-07	HERRINGTON, DAVID M.	412,536
MULTIDISCIPLINARY TRAINING IN CARDIOVASCULAR IMAGING	NHLBI	5T32HL091824-02	HUNDLEY, WILLIAM GREGORY	239,802
TRAINING PROGRAM IN GERONTOLOGICAL AND GERIATRIC MEDICINE	NIA	5T32AG033534-02	KRITCHEVSKY, STEPHEN B	153,121
MULTIDISCIPLINARY TRAINING IN THE BIOLOGY OF ADDICTION	NIAAA	5T32AA007565-17	MCCOOL, BRIAN A	249,503
TRAINING PROGRAM IN IMMUNOLOGY AND PATHOGENESIS	NIHAI	5T32AI007401-19	MIZEL, STEVEN B.	172,686
NIH JOINTLY SPONSORED PREDOCTORAL TRAINING PROGRAM IN NEUROSCIENCE	NINDS	2T32NS007432-11A2	OPPENHEIM, RONALD W	124,714
INTEGRATIVE LIPID METABOLISM, INFLAMMATION, AND CHRONIC DISEASES	NHLBI	5T32HL091797-04	PARKS, JOHN S	181,504
TRAINING PROGRAM IN TRANSLATIONAL RADIATION ONCOLOGY	NCI	2T32CA113267-06	ROBBINS, MICHAEL E.	288,561
TRAINING PROGRAM IN CANCER BIOLOGY	NCI	2T32CA079448-11A1	TORTI, FRANK M	462,469
Total FY costs				\$2,961,667

Training grants commonly also include support for postdocs, which adds further to the mentoring and professional development opportunities. The Graduate School maintains a yearly census for the number of postdoctoral fellows for use in training grant and other applications. For 2010-11, there are 168 postdoctoral fellows housed on the Bowman Gray campus, which is about the same number (172) as in 2009-10. On the Reynolda Campus, there are 15-20 additional postdocs involved either in research programs or who are part of the Provost’s initiative to recruit “Postdoc Teacher-Scholars” for increasing diversity and advancing postdoctoral career development. The Graduate School also began a Postdoctoral Development Award Program in 2009-10 that provides up to \$500 for current fellows to take advantage of opportunities that would not otherwise be available. Two rounds of awards were made this past year. An example of such an award was that provided to Dr. Mesia Steed for attending the National Postdoctoral Association (NPA)’s annual meeting where she learned of an opportunity to apply for a diversity officer position with the NPA. Another initiative to enhance recognition of postdoctoral fellows was beginning a “Postdoctoral Scholar of the Year “ and “Postdoctoral Mentor of the Year” awards program. The first such awards were bestowed on Dr. Hassam Shaltout of the Hypertension Center for his exemplary research record and independence, and on Dr. Fred Perinno of the Department of Physiology and Pharmacology for his mentoring expertise and track record. A special event was held to honor them in April, at which both gave excellent acceptance speeches.

Internships serve as valuable means for students to apply their training to the solution of important industry or community problems. Activities this past year focused on identifying additional partners and

by further integrating such opportunities with our PhD/MBA and emerging Certificate in Science Management programs.

The Graduate School provides support to the Graduate Student Association, the Black Graduate Student Association, and the Brain Awareness Council student groups. To aid in coordinating their efforts, the Graduate School initiated the formation of a Council of Graduate and Professional Student Organizations that is comprised of the heads of each of the existing student groups. It met twice during the year to coordinate activities and publish a semianual newsletter. It is hoped that this new Council will enable improved coordination of student activities, networking among our students, and greater efficiency in the allocation of institutional resources.

We presently require all graduating students to complete an “Exit Survey” at Graduation for gaining feedback about the Graduate School’s activities and their graduate-student experience in general. In order to obtain such information during the course of their program and from students who do not complete their degrees, Associate Dean Godwin developed a first-year survey. In response to the Provost’s request, the Graduate School helped plan an effort for developing a code of graduate and professional student conduct that incorporates procedures for dealing with non-academic as well as academic misconduct. The goal of such a code is clarify expectations and processes for dealing with misconduct in ways that promote student well being, protect the integrity of our graduate programs, abide by institutional policies, and respect state or national laws.

#### C. Key Goals for 2011-12 and Plans for the Coming Year Aimed at Achieving These Goals

In keeping with our mission, values and vision statements (Figure 1), our goals for 2011-12 remain ones of advancing our four pillars of excellence; namely, promoting excellence in student experience, research, faculty and staff support, and communication (Figure 2). Table 3 lists the strategic activities planned for achieving these goals in 2011-12. With the search beginning for a new Provost following Jill Tiefenthaler’s departure as of July 1 and the appointment of the new Dean of the School of Medicine, Ed Abraham, effective August 1, the coming year will be a key period for the Graduate School for realizing the benefits of the changes that take effect this year and for enabling our programs to achieve even greater success in the years ahead. We discuss our plans below with respect to our overall operations, recruiting and program publicity activities, and then graduate student and postdoctoral fellow professional development.

General Graduate School operations. During the summer, we will update our website with recently-introduced changes and streamline it to make it as effective as possible. We will use the data obtained from Google Analytics™ on the numbers of persons accessing our website, the regions of the world from which they come, and the pages visited as well as individual comments received from faculty, staff and students. Refinement of our Graduate School website continues to be a priority for assisting faculty in promoting their research activities in order to recruit top students and enhancing the student experience. Near completion are the faculty expertise pages within each of the interdisciplinary tracks. Track administrative assistants are being trained in the use of the new WordPress™ based content management system for maintaining these pages, which will be launched in time for the fall recruitment season. We will also update our Graduate Program Director’s Handbook, Graduate School Bulletin, and Graduate Faculty List for use by Academic Analytics and in our regular Graduate-School operations.

As has been done for the last four years, Dean Moore will meet with each Graduate Program or Track Director (GPD) and relevant chair over the summer to chart progress from the previous year and lay

**Table 3.** Key Goals for 2011-12 and Plans for Achieving Them.

PLANS FOR 2011-12	GRAD SCHOOL GOALS			
	Student experience	Research	Faculty & staff support	Communication
<b>1. General Graduate School operations:</b>				
a. Update website, Handbook, Bulletin, Faculty Lists.	X		X	X
b. Engage Graduate Program Directors in identifying “Balanced Score Card” targets for 2011-12.	X	X	X	X
c. Welcome incoming PhD students to new tracks.	X	X	X	X
d. Develop new master’s programs for each track, other degree or certificate programs.	X	X	X	X
e. Maintain budget-tracking and transparency.			X	X
f. Engage GPD in budget planning for new TA/GA positions, stipend increases, other support.	X	X	X	X
g. Complete Fall enrollment tables by Nov 1.			X	X
h. Adopt new tools for improving operating efficiency (Apply Yourself™, Curvita™).		X	X	X
i. Continue to publish semi-annual Newsletter.				X
j. Work with Advancement/Development Offices to increase fund-raising for graduate programs.	X		X	X
<b>2. Recruiting/program publicity:</b>				
a. Update recruiting materials.	X	X	X	X
b. Attend key fall recruiting events.	X		X	X
c. Host Demon Deacon Diversity Day.	X		X	X
d. Pilot diversity fellows program.	X	X	X	X
e. Expand support for minority fellowships.	X	X	X	X
f. Implement new Apply Yourself™ procedures.	X		X	X
g. Improve Spelman Summer Fellows program.	X	X	X	X
<b>3. Graduate student and postdoctoral fellow professional development:</b>				
a. Offer TA-training orientation session, aid departmental programs, other workshops.	X		X	X
b. Continue to provide RCR instruction.	X	X	X	X
c. Implement a first-year student survey.	X	X	X	X
d. Launch new Certificate in Science Management.	X	X	X	
e. Expand postdoc recognition and support.	X	X	X	
f. Aid in submission of training grants, fellowships.	X	X	X	X
g. Expand internships.	X		X	
h. Coordinate student associations.	X			X
i. Help complete a code of student conduct.	X		X	

plans for the coming one. A special effort will be made to ensure that GPDs and Chairs are familiar with our “Balanced Score Card”, its strategic activities for reaching our four pillars of excellence, and 2011-12 targets that affect their program.

The first cohort of PhD students entering our interdisciplinary tracks will arrive in August. We will welcome them and all our PhD and master's students with orientation sessions on each campus. Students will enroll in the new Interpreting and Translation MA program, thus involving a new department (Modern Languages) more closely in Graduate School activities. The orientation session will introduce students to the health insurance, counseling, learning assistance, student associations, and other kinds of services available on the two main campuses.

Each interdisciplinary track is required to propose a master's program that will provide a coherent structure for students seeking a master's degree or terminating their studies prior to PhD completion. Discussion is also underway regarding new global nutrition, informatics, online counseling and human services programs as well as ways to restructure the MLS and summer MA Ed Visiting International Fellows (VIF) programs.

We will continue our budget-tracking procedures. After December 2011, Dixie Ross will no longer have a portion of her time supported by the Graduate School and hence the monitoring processes she

helped to establish will be overseen by Debbie Deheck and, as before, Susan Pierce. Now that the Associate Deans have each had a year in their present position, their operating budgets will be formalized as well.

We will engage GPDs in budget planning for new TA or GA positions, stipend increases, course buyouts or other forms of financial support. Toward this end, we will provide them with summaries of where Graduate School funds come from and where they go so as we did at our May 2011 GPD retreat. 2011-12 student stipends have been increased for the Reynolda programs responsible for generating the most net tuition revenue. While recognizing that the proportion of WFU master's students receiving Graduate School-administered financial aid is greater than at many institutions, student decisions as to what graduate school to attend are strongly affected by stipend level and so we seek to bring all stipends to nationally-competitive levels. Stipends for Bowman Gray campus students have been increased for 2011-12 and now reach the target set with Dean Moore's arrival four years ago, but continued efforts are needed to keep them competitive.

Previously, our Annual Report Tables 2-7 containing fall enrollment data were prepared in June, along with the graduation and other year-end data. To more evenly distribute the workload and to have the enrollment data available during recruiting, we will change the calendar so as to have these tables completed by November 1. Having this data sooner will also help with budgetary planning for TA/GA and other forms of student support.

We are in the process of adopting the new application services provided by Apply Yourself<sup>™</sup>. On the Reynolda campus, telepresence capability is being installed in several classrooms and it is hoped that these can be used to connect the campuses for Graduate Faculty meetings and other such bi-campus events. At Bowman Gray, lecture capture capabilities are being developed to take advantage of the Tegrity<sup>™</sup> platform used by the Medical School. Discussion is also continuing for the renovation of a new education building in the Piedmont Triad Research Park. One Biotech Place (formerly called Building 90-1 and 90-2) in the Piedmont Triad Research Park will open in January 2012 and house many of our students. With the recommendation of the Bowman Gray campus Research Advisory Committee, the Curvita<sup>™</sup> Training Grant database is being integrated into PeopleSoft<sup>™</sup> and will be

launched in late 2011. It is expected that this will facilitate the submission of training grants as well as tracking other graduate-program contributions.

For enhancing our visibility, recruiting, and fund-raising we will distribute July-Dec 2011 and Jan-Jun 2012 issues of our Newsletter to all graduate faculty, graduate students, senior administrators, and the Advancement and Development Offices. Other forms of assistance will also be provided the Advancement and Development Offices to increase fund-raising for programs.

Recruiting/Program Publicity. We will update our recruiting materials by adding information about new programs such as our Spelman Summer Fellows program. We will develop a Diversity webpage that includes photos, comments, and video clips about recent students, program participants, and events. Recruitment for Demon Deacon Diversity Day (November 18-20, 2011) will occur throughout the fall by circulating flyers at graduate school fairs, and distributing flyers and posters to key schools and undergraduate programs. Again the top HBCUs will be visited whenever possible and to ensure that these publicity materials are reaching their intended audiences. Some additional HBCUs not visited in 2010 will include Fisk (Tennessee), Claflin (South Carolina), NCCU, Johnson C. Smith, and Elizabeth City State University. Other top institutions beyond driving distance will be contacted by mail to distribute flyers and posters: Xavier, Tuskegee, Dillard, and Tougaloo. Associate Dean Brad Jones will continue to attend minority recruitment seminars and workshops like those offered at Clemson University together with a recruiting partner, preferably an African American near the average age of our applicants, and collaborate with Oliver Thomas, the African-American recruiter for the Divinity School.

The small upward trends in URM applicants in recent years (Figure 4) is encouraging but will not get us up to the national level desired. We feel a drastic change is needed to make meaningful progress in our ability to increase URM enrollment. Given our experience that applications from URM tend to come in late, probably because WFU has not yet established itself as the “place to be” for minority students, we propose a new Fall recruiting event and have set as our goal to double the number of minority applicants. There are several advantages for us in being able to do so. Winston-Salem’s diversity and southern culture combined with WFU’s small size, friendly nature, and close faculty-student interactions should be highly attractive to students graduating from HBCUs, given that HBCUs share these same qualities. Our small total number of students means that we need to recruit fewer students than larger universities to make the same impact on a percentage scale. Similar to what we do at WFU on the undergraduate level, recruiting a relatively small number of the very best students will enable us to measurably raise student quality. In short, adding diversity to our student population will distinguish us both inside and outside of the University. By doubling the number of minority applicants, we hope to double our URM matriculants. But to do so, we need to be sure that the quality of the URM applicants is as high as possible so as to maximize the likelihood that program committees will recommend admission.

We feel these goals can be met through the combination of a high quality on-campus recruiting event, targeted financial incentives for URM applicants, and our continued efforts to increase the percent of URM students who accept our offers of admission and matriculate into our programs. In addition to updating our recruiting materials and visiting top HBCUs, two major new initiatives are planned.

- Host “Demon Deacon Diversity Day” as a fall minority-student recruiting event. Up to 100 URM potential applicants will visit the campus during the weekend of November 18-20, 2011. On Friday night they will check-in at the Hawthorne Inn, enjoy a banquet and a Graduate School

information session at which we will have representatives from each program present. Students will be able to apply on-line on the spot, with the application fee waived. On Saturday morning, students will tour campus and visit the program(s) of their interest. On Saturday afternoon, they will attend a catered tailgate party near BB&T field that will include WFU faculty, staff, and students interested in campus diversity. We have a block of 100 tickets for the WFU-Maryland football game that day. After the game, students will return to their rooms and leave on Sunday.

- Pilot a Diversity Fellows Program. During Demon Deacon Diversity Day we hope to identify the top 2-3 minority applicants and offer them attractive fellowships as incentives to enter our programs. This Diversity Fellowship will include a full tuition scholarship and a stipend from the Graduate School during the first year that is currently planned as \$15,000 for master's students and \$25,000 for doctoral students. For programs requiring more than one year for completion, the Graduate School will supplement the ongoing stipend provided through their program of interest so that it will remain at the increased level throughout the student's tenure. At most, we plan to support three (3) students with no more than one (1) being for a PhD-program student.

We will seek to expand philanthropic support for the continuation of this pilot Diversity Fellows Program. One source is our Hearst awards. The Demon Deacon Diversity weekend will provide a larger pool of URM applicants that can be identified earlier in the admissions process, which will enable us to use the Hearst awards for recruiting the finest applicants. We hope to have an additional Hearst award in 2011, which would then yield seven (7) \$4000 stipend-supplements. Corporate sponsors for the Fall Demon Deacon Diversity Day event are also being sought.

New Apply Yourself™ application procedures are currently in the process of being implemented. The new site will go live in August 2011. The School of Divinity is partnering with us on this project. This new system will enable Graduate Program Directors to view all materials directly from Apply Yourself™, including letters of recommendation, GRE scores, and transcripts such that the application process will be completely paperless from our end. Using Apply Yourself™ will allow us to track applicants who haven't completed their applications, enabling us to send e-mail reminders or respond to questions so as to help ensure that such applications are completed. We will also be able to track demographics like race/ethnicity and first generation college status. This is a variable for which we have not had data in the past. More results from this endeavor will be available in 2012.

Our request for additional Spelman Summer 2011 Fellowships for the Reynolda campus was not successful. The request was rated very highly, but funding was scarce. We will apply again for Summer 2012. If funded, we will expand our Spelman Summer Fellows program to include five (5) additional women from Hampton University. One student from Hampton participated along with the 10 Spelman ladies this year, and her experience has been fantastic. In any event, we will improve upon the Spelman-Wake experience next summer based on our initial experience and the comments / suggestions made by this year's participants on the evaluation form completed at the end of the program.

Graduate student and postdoctoral fellow professional development. The Graduate School will continue to address the needs of our students by providing TA orientation and RCR training activities. Based on feedback from GPDs, the emphasis of TA orientation will be shifted to departmentally-based training but compliance issues specific to execution of TA responsibilities and other federal requirements will be covered by the Graduate School. The Graduate School will host several workshops on topics such as grantsmanship, preparation of individual fellowships, professional networking, manuscript preparation,

leadership development, and alternate career paths. RCR training will undergo continuing refinement in order to achieve the greatest relevance. For example, several "ripped from the headlines" case studies are being integrated into the problem-based learning modules for the Grad 713/714 and Grad 707/708 courses provided to Bowman Gray and Reynolda campus students respectively. A RCR seminar for postdoctoral fellows and faculty will continue in the Fall and Spring.

We will implement a first-year student survey by sending out the questionnaire that has now been developed and pretested by several of our current or recent students. This will use Survey Monkey™ or another system that enables reminders to be sent to students who have not yet submitted the survey, so as to obtain as high a response-rate as possible.

The new Certificate in Science Management has been approved by both the Graduate and Business Schools. An intensive effort to market the new program will begin, with redesign of the web page and plans for a series of presentations to regional programs and businesses.

We will expand postdoc recognition and support through several ongoing initiatives such as the Scholar Development Awards of up to \$500 for career-development activities, the Postdoctoral Scholar of the Year Award, and the Postdoctoral Mentor of the Year Award. Other new activities will be promoted as well.

We will continue to aid in submission of training grants, individual fellowships, and other kinds of mechanisms for supporting graduate students and postdoctoral fellows. We will do this by co-sponsoring workshops on grantsmanship with the Office of Research and as part of our professional development courses. With the assistance of John Boehme and members of the Research Advisory Committee, we have helped to acquire Curvita™ -- a program that will enable accessing Peoplesoft™-based data for generate the many, lengthy) tables required for T32 applications -- and are assisting in its implementation.

In an effort to expand graduate-student internships, we will continue to meet with industry and other potential hosts for summer programs. We are also examining ways to provide similar experience for postdoctoral fellows, who are more limited with respect to the amount of time and effort that they can devote to outside activities.

As before, we will help coordinate the Graduate Student Association, the Black Graduate Student Association, and the Brain Awareness Council. We will also help to promote coordination of activities among all the graduate and professional student groups.

Two representatives of the Graduate School, Greg Shelness and Eric Wilson, have been appointed to the committee for developing a graduate and professional student code of conduct. We will help circulate the committee's recommendations and garner feedback for bringing this project to completion.

## **5. 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 Wake Forest University Provost Jill Tiefenthaler and the Medical School Dean / President of Health Affairs Bill Applegate. This



support has made it possible to fund stipends for TAs or GAs, fellowships, tuition scholarships, and the personnel and operating budgets for the the Graduate School offices on both campuses.

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Special thanks are extended to the Graduate Program 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 in planning for the implementation of the ETD system for our masters and doctoral students.

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We thank the Information Services staff at Reynolda and Academic Computing at Bowman Gray for their assistance with permitting the student information obtained in Peoplesoft<sup>™</sup> to be fed directly into Banner<sup>™</sup>. We also thank the Information Services staff at Reynolda 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 fundraising potential.

Assistance at new student orientation was graciously provided by Kevin Brewer from Academic Computing for HIPAA training and other institutional policies; Graduate Student Association representatives Summer Hanna and Clinton Orebaugh, Black Graduate Student Association representative Dana Yancey, Brain Awareness Council representative Malaak Moussa, Health and Effectiveness Council representative Jessica Cooke and Amy Hicks; Education Compliance Officer Mary Truell; Financial Aid Counselor Tom Benza and Director Melissa Stevens; International Studies Assistant Director Kent Greer; Student Health Services representative Betsy Idol; and United Health Care Insurance representative Wendy Massingill.

The assistance of Will Clarke in redesigning our website is greatly appreciated as is the support from Sally Webb and Bill Barker of the Peoplesoft™ unit at Bowman Gray. We thank Mike Ayuso, Rick Matthews, and Johannes Boehme for their help in assembling materials for reviewing our options for a more inclusive online applications system.

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 Graduate Council and the many other kinds of meetings and special events sponsored by the Graduate School.

## **6. 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. Associate Graduate School Dean Bradley Jones participated together with Associate College Dean Randy Rogan and Office of Institutional Research Director Ross Griffith in a process to recommend improvements in the system for conducting departmental and other program review. Recommendations were made to implement this new system in the coming year.

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 such as that undertaken by the Masters and Doctoral Task Forces during recent years. 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.

The regular accreditation-related review at Reynolda results in a jointly constructed Memorandum of Understanding (MOU) that specifies the actions to be taken and is signed by the Dean of the College, Graduate School Dean, Provost, and Department Chair. 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. At both campuses, additional means include the first-year student survey being 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 such as those from the Graduate School's Graduate Student Audit, Program Retention and Degree Completion Study, and Masters and Doctoral Task Forces. Most programs also conduct additional surveys following graduation. 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 campus and extension of this training to Reynolda, and changes in administrative procedures such as the adoption of Apply Yourself™.

## **7. 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 for recruiting minority 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.
- Implementing a WFU-wide professional development program to enable RCR training for Reynolda campus students, the consolidation of Bowman Gray campus courses, and expand the kinds of training provided.
- Providing services in support of Bowman Gray and Reynolda postdoctoral career development through our Office of Postdoctoral Affairs.

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 but not, we regret to say, meaningfully increased minority enrollment. To redouble our efforts to increase minority enrollment, we have created a summer fellows program with Spelman College (the top-ranked HBCU), planned a Fall 2011 Recruiting Weekend for minority students, and laid plans for beginning a Diversity Fellows Program in

the coming year. In the coming year we will also engage in planning for the kinds of support services that are needed to ensure the success of all our students in completing their programs and gaining entry to the career paths desired.

## **8. COMMENTS REGARDING TABULAR MATERIAL**

Table 1 provides an alphabetical list of our 20 masters programs, 13 PhD programs, and eight (8) joint programs. There are 16 masters and three (3) PhD programs based on the Reynolda Campus, and four (4) masters and 10 PhD programs at the Bowman Gray Campus. In addition to these degree programs, the Graduate School has three (3) certificate programs – bioethics, medieval studies and structural/computational biophysics. A new MA and certificate program in Interpreting and Translation Studies Film, a new certificate program in Science Management, and new certificate programs in Clinical Bioethics or Biomedical Research Ethics will begin enrolling students in the Fall 2011.

Table 2 provides the total numbers of applications, acceptances and matriculants for Fall 2010, broken down by program and campus. Compared to Fall 2009, there were 19% (249) more applications, essentially the same number who were extended offers of admission, and 6% (14) more students who matriculated; this indicates a growing interest in our programs and high degree of selectivity for students being offered admission. The small increase in the number of matriculants was due entirely to changes at Bowman Gray. On average, 26% of applicants were accepted and, of these, 67% enrolled. A slightly lower percent of applicants were offered admission but otherwise the percent accepted and percent matriculating were the same as in previous years.

Tables 3A-C show application, acceptance, and matriculation profiles for each program by gender, race or ethnicity, and international status. There are now more females than males in each of these categories at both campuses, whereas in the past this was true at Reynolda but not Bowman Gray. The percent of under-represented minorities (URM defined as Blacks, Hispanics, Pacific Islanders, American Indians, or Native Alaskans as Asians are no longer under-represented in graduate education) among applicants, persons offered acceptance, and matriculants at Bowman Gray was 16%, 12% and 14% respectively and 14%, 11%, and 9% at Reynolda. Compared with national averages, the percent URM matriculating in graduate programs at either WFU campus is about half the national average (Figure 5). International students comprise 25% of applicants, 15% of students made offers of admission, and 15% of matriculants; this indicates strong interest in our programs abroad and the competitive nature of admission into our programs.

Tables 4A-C provide test scores by program and by campus. Graduate Record Exam (GRE) and grade point averages (GPAs) are the same at the two campuses. As expected, test scores are somewhat higher for acceptances and matriculants than applicants. MCAT scores, accepted in lieu of the GRE for applicants to the MD/PhD program, are uniformly high.

Table 5 shows the distribution of all students enrolled by program and degree. Overall student numbers are up 8%, continuing the 7% increase observed last year. Bowman Gray and Reynolda campus programs grew this year by 7% and 9% respectively, whereas last year only Reynolda programs were larger.

Table 6 shows all students enrolled broken down by race/ethnicity, program and campus. Among US students, URM minorities constituted 7.5% of all students at Bowman Gray and 8.8% of all students at

Reynolda. International students comprised 21% of all students enrolled on the Bowman Gray campus and 18% of students at Reynolda.

Table 7 profiles international students by country, new vs. continuing status, and program. China and India remain the countries from which international students come most commonly. Comparing the distribution of world regions between new and continuing students, there are somewhat more new students coming from Asia but otherwise the distribution of students from Europe, Africa, Asia and South or Central America is similar for new and continuing students.

Table 8 lists the masters and PhD degrees awarded by program. A total of 15% more degrees were awarded in 2010-11 compared to 2009-2010, with increases occurring at Bowman Gray (16%) and Reynolda (15%). Increases occurred both in the number of PhD degrees (38%) and master's degrees (8%) being awarded.

Tables 9A and 9B present the time-to-degree completion and percent degree completion for each program. Across all programs, the time to PhD completion averages 5.8 yr, much shorter than the national ~7 yr average for the life sciences, with values being closely clustered from 4.5 to 6.5 yr among programs. Time to master's degree completion averages 2.2 yr for all full-time programs and is generally similar for MA and MS programs. Concerning percent degree completion, 70% of students entering PhD programs in the Fall 2004 completed their PhD within the intervening seven (7) years. This figure is well above the national average for life science programs. Whereas last year, the average percent PhD completion was greater for Bowman Gray than Reynolda programs, figures are similar for the two campuses in the current year. The overwhelming majority (63%) of students who entered full-time Master's programs in the Fall 2009 completed their degrees at uniformly high rates, the exception being the two Bowman Gray master's programs. Lower completion rates generally indicate that students required an additional term for degree completion, which is reflected in their somewhat longer than 2-yr average time-to-degree completion in Table 9A. Given the small numbers of graduates in any one program, figures may be expected to fluctuate from year to year but commendable is the high degree-completion rate overall.

Table 10 summarizes our student's plans at the time of their graduation. Across all programs, 29% plan to continue their education by enrolling in PhD, master's or professional degree programs in medicine, business, or law; 25% go into academic positions appropriate for their degree program as assistant professors, clinicians at academic medical centers, or K-12 teachers; 18% have accepted postdoctoral or research fellow positions; 18% report their plans as unknown; and 10% are going into industry positions as software engineers, chemists, business developers. Thus the overwhelming majority of graduates appear to be proceeding successfully along a career trajectory consistent with their graduate training.

Table 11 shows financial aid by program. Tuition scholarships rose in keeping with the rise in tuition. PhD stipends were raised \$1057 at Bowman Gray and \$1000-\$1350 at Reynolda. Reynolda PhD stipends remained lower than those at Bowman Gray but the difference is narrowing. Master's stipends rose at least 5% in each program, the first such increase in 10 years.

Table 12 shows that the preponderance of support is from assistantships at Reynolda and research grants at Bowman Gray. The institutional "assistantship" positions shown here and in previous Annual Reports were used to generate the numbers of teaching and graduate assistantships shown in Figure 3. Overall 84% of Bowman Gray and 94% of Reynolda students received some sort of financial aid.

**TABLE 1. GRADUATE DEGREE PROGRAMS  
AT WAKE FOREST UNIVERSITY, 2010 - 2011**

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

**\*\*Summer Only Program**

**TABLE 2. APPLICATION STATISTICS BY PROGRAM, FALL 2010: NUMBERS  
RECEIVED, ACCEPTED, AND MATRICULATED**

	Applications	Accepted	Matriculated
<b>BAMB*</b>	59	9 (15%)	3 (33%)
<b>BIE</b>	22	12 (55%)	6 (50%)
<b>BIO*</b>	65	14 (22%)	11 (79%)
<b>BMES*</b>	166	51 (31%)	28 (55%)
<b>CABI*</b>	92	11 (12%)	3 (27%)
<b>CHM*</b>	55	11 (20%)	7 (64%)
<b>CNS</b>	175	17 (10%)	14 (82%)
<b>CNS M/Div</b>	9	2 (22%)	2 (100%)
<b>COM</b>	42	17 (40%)	12 (71%)
<b>COMD</b>	0	0	0
<b>CPTS</b>	15	13 (87%)	12 (92%)
<b>CSC</b>	30	11 (37%)	10 (91%)
<b>DOC</b>	54	28 (52%)	22 (79%)
<b>EDU</b>	56	34 (61%)	26 (76%)
<b>ENG</b>	41	20 (49%)	13 (65%)
<b>HES</b>	33	8 (24%)	8 (100%)
<b>MCPA*</b>	25	11 (44%)	6 (55%)
<b>MICR*</b>	84	6 (7%)	5 (83%)
<b>MLS</b>	1	1 (100%)	1 (100%)
<b>MMTS*</b>	68	16 (24%)	8 (50%)
<b>MOGN*</b>	50	5 (10%)	5 (100%)
<b>MTH</b>	30	24 (80%)	17 (71%)
<b>NBAT*</b>	20	6 (30%)	2 (33%)
<b>NUSC*</b>	68	16 (24%)	10 (63%)
<b>PHY*</b>	67	14 (21%)	10 (71%)
<b>PSPR*</b>	36	10 (28%)	4 (40%)
<b>PSY</b>	151	17 (11%)	12 (71%)
<b>REL</b>	40	10 (25%)	5 (50%)
<b>VIF</b>	10	5 (50%)	5 (100%)
<b>Bowman Gray</b>	683	154 (23%)	86 (56%)
<b>Reynolda</b>	881	245 (28%)	181 (74%)
<b>TOTALS</b>	<b>1564</b>	<b>399 (26%)</b>	<b>267 (67%)</b>
<b>MD/PhD</b>	63	9 (14%)	2 (22%)

\*Includes MD/PhD Applicants

**TABLE 3A. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITY  
FOR APPLICANTS, FALL 2010**

	Male	Female	Unk	TOTAL	White	Black	Hispanic	Asian	Am Ind	Intern	Unk
<b>BAMB*</b>	29	30		<b>59</b>	23	2				31	3
<b>BIE</b>	6	16		<b>22</b>	16	1		2			3
<b>BIO*</b>	25	40		<b>65</b>	35	6	1	4		14	5
<b>BMES*</b>	89	68	9	<b>166</b>	79	5		10		65	7
<b>CABI*</b>	35	57		<b>92</b>	30	10	4	4		36	8
<b>CHM*</b>	34	21		<b>55</b>	12	3				35	5
<b>CNS</b>	37	138		<b>175</b>	130	23	2		1	3	16
<b>CNS M/Div</b>	2	7		<b>9</b>	7	1					1
<b>COM</b>	13	29		<b>42</b>	16	1	1	1		20	3
<b>COMD</b>				<b>0</b>							
<b>CPTS</b>	8	7		<b>15</b>	7	3				3	2
<b>CSC</b>	19	11		<b>30</b>	7			1		17	5
<b>DOC</b>	30	24		<b>54</b>	34	6	5	1			8
<b>EDU</b>	17	39		<b>56</b>	44	6	2	1			3
<b>ENG</b>	15	26		<b>41</b>	34	2	1	2		2	
<b>HES</b>	10	23		<b>33</b>	27	1				4	1
<b>MCPA*</b>	8	17		<b>25</b>	14	2	2			6	1
<b>MICR*</b>	26	58		<b>84</b>	43	4	4	4	1	21	7
<b>MLS</b>	1			<b>1</b>		1					
<b>MMTS*</b>	33	35		<b>68</b>	20	10	4	1		26	7
<b>MOGN*</b>	25	25		<b>50</b>	23	3		1		20	3
<b>MTH</b>	20	10		<b>30</b>	14	1		3		7	5
<b>NBAT</b>	10	10		<b>20</b>	8	1				11	
<b>NUSC*</b>	27	41		<b>68</b>	37	3	1	2		17	8
<b>PHY*</b>	56	11		<b>67</b>	26	1		1		29	10
<b>PSPR*</b>	18	18		<b>36</b>	16	5		1		11	3
<b>PSY</b>	51	100		<b>151</b>	93	16	3	5	2	7	25
<b>REL</b>	24	16		<b>40</b>	31	3		1			5
<b>VIF</b>	1	9		<b>10</b>						10	
<b>BG</b>	308	366	9	683	300	48	15	23	1	247	49
<b>REY</b>	361	520	0	881	526	72	15	22	3	148	95
<b>TOTALS</b>	<b>669</b>	<b>886</b>	<b>9</b>	<b>1564</b>	<b>826</b>	<b>120</b>	<b>30</b>	<b>45</b>	<b>4</b>	<b>395</b>	<b>144</b>
<b>MD/PhD</b>	39	24	0	<b>63</b>	40	0	0	4	0	2	17

\*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 2010**

	Male	Female	Unk	TOTAL	White	Black	Hispanic	Asian	Am Ind	Intern	Unk
<b>BAMB*</b>	4	5		<b>9</b>	8					1	
<b>BIE</b>	2	10		<b>12</b>	9	1					2
<b>BIO</b>	7	7		<b>14</b>	13						1
<b>BMES*</b>	28	22	1	<b>51</b>	36	1		1		11	2
<b>CABI*</b>	4	7		<b>11</b>	5	2	1	1		1	1
<b>CHM</b>	6	5		<b>11</b>	3	2				6	
<b>CNS</b>	8	9		<b>17</b>	13	4					
<b>CNS M/Div</b>		2		<b>2</b>	1	1					
<b>COM</b>	7	10		<b>17</b>	11		1			3	2
<b>COMD</b>				<b>0</b>							
<b>CPTS</b>	7	6		<b>13</b>	7	3				2	1
<b>CSC</b>	7	4		<b>11</b>	6					4	1
<b>DOC</b>	17	11		<b>28</b>	17	3	1	1			6
<b>EDU</b>	10	24		<b>34</b>	25	4	1	1			3
<b>ENG</b>	6	14		<b>20</b>	17		1	2			
<b>HES</b>	2	6		<b>8</b>	7						1
<b>MCPA*</b>	4	7		<b>11</b>	6	2				2	1
<b>MICR*</b>	1	5		<b>6</b>	3		1			1	1
<b>MLS</b>	1			<b>1</b>		1					
<b>MMTS*</b>	7	9		<b>16</b>	7	2	1			4	2
<b>MOGN</b>	3	2		<b>5</b>	4					1	
<b>MTH</b>	15	9		<b>24</b>	11	1		2		6	4
<b>NBAT</b>	2	4		<b>6</b>	4					2	
<b>NUSC*</b>	7	9		<b>16</b>	9			2		2	3
<b>PHY</b>	9	5		<b>14</b>	6					8	
<b>PSPR</b>	5	5		<b>10</b>	6	1				2	1
<b>PSY</b>	8	9		<b>17</b>	11			1			5
<b>REL</b>	8	2		<b>10</b>	9						1
<b>VIF</b>	1	4		<b>5</b>						5	
<b>BG</b>	72	81	1	<b>154</b>	95	11	3	4	0	29	12
<b>REY</b>	114	131	0	<b>245</b>	159	17	4	7	0	32	26
<b>TOTALS</b>	<b>186</b>	<b>212</b>	<b>1</b>	<b>399</b>	<b>254</b>	<b>28</b>	<b>7</b>	<b>11</b>	<b>0</b>	<b>61</b>	<b>38</b>
<b>MD/PhD</b>	3	6	0	<b>9</b>	6	0	0	2	0	0	1

\*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 2010**

	Male	Female	Unk	TOTAL	White	Black	Hispanic	Asian	Am Ind	Intern	Unk
<b>BAMB</b>	1	2		3	3						
<b>BIE</b>		6		6	5	1					
<b>BIO</b>	6	5		11	11						
<b>BMES</b>	14	13	1	28	21	1				5	1
<b>CABI</b>		3		3	2	1					
<b>CHM</b>	5	2		7	3					4	
<b>CNS</b>	6	8		14	12	2					
<b>CNS M/Div</b>		2		2	1	1					
<b>COM</b>	4	8		12	9		1	1		1	
<b>COMD</b>				0							
<b>CPTS</b>	7	5		12	7	2				2	1
<b>CSC</b>	6	4		10	6					4	
<b>DOC</b>	12	10		22	18	2		2			
<b>EDU</b>	8	18		26	20	3	2				1
<b>ENG</b>	4	9		13	13						
<b>HES</b>	2	6		8	8						
<b>MCPA</b>	2	4		6	3	1				1	1
<b>MICR</b>	1	4		5	2		1			1	1
<b>MLS</b>	1			1		1					
<b>MMTS</b>	3	5		8	2	2	1			3	
<b>MOGN</b>	3	2		5	4					1	
<b>MTH</b>	11	6		17	11	1		1		4	
<b>NBAT</b>	1	1		2	1					1	
<b>NUSC*</b>	5	5		10	7			1			2
<b>PHY</b>	7	3		10	3					7	
<b>PSPR</b>	2	2		4	2					2	
<b>PSY</b>	5	7		12	11			1			
<b>REL</b>	4	1		5	5						
<b>VIF</b>	1	4		5						5	
<b>BG</b>	39	46	1	86	54	7	2	1	0	16	6
<b>REY</b>	82	99	0	181	136	11	3	5	0	25	1
<b>TOTALS</b>	121	145	1	267	190	18	5	6	0	41	7
<b>MD/PhD</b>	1	1	0	2	1	0	0	1	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 2010

	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
<b>BAMB*</b>	516	709	1225	3.9	3.4	56	33
<b>BIE</b>	545	674	1219	4.5	3.2		28
<b>BIO</b>	504	669	1173	4.1	3.4	86	25
<b>BMES*</b>	511	741	1252	4.0	3.5	107	34
<b>CABI*</b>	473	682	1155	3.8	3.4	58	35
<b>CHM*</b>	427	724	1151	3.4	3.2	85	36
<b>CNS</b>	506	578	1084	4.2	3.4	105	
<b>CNS M/Div</b>	511	531	1042	4.4	3.2		
<b>COM</b>	533	664	1197	4.2	3.4	89	
<b>COMD</b>							
<b>CPTS</b>	426	584	1010	4.3	3.5	193	
<b>CSC</b>	470	747	1217	3.7	3.5	84	
<b>DOC</b>	508	528	1036	4.3	3.3	118	
<b>EDU</b>	552	651	1203	4.4	3.5		
<b>ENG</b>	611	580	1191	4.7	3.6		
<b>HES</b>	458	640	1098	4.1	3.5	108	28
<b>MCPA*</b>	514	655	1169	4.2	3.5	25	33
<b>MD/PhD</b>							33
<b>MICR*</b>	516	673	1189	4.0	3.3	35	33
<b>MLS</b>					2.2		
<b>MMTS*</b>	498	667	1165	3.9	3.4	53	33
<b>MOGN*</b>	520	679	1199	3.8	3.4	57	34
<b>MTH</b>	489	746	1235	4.1	3.4	94	
<b>NBAT</b>	464	693	1157	3.8	3.4	46	
<b>NUSC*</b>	518	683	1201	4.0	3.4	47	33
<b>PHY*</b>	502	759	1261	3.7	3.3	94	33
<b>PSPR*</b>	453	684	1137	4.0	3.4	52	30
<b>PSY</b>	517	614	1131	4.4	3.5	101	
<b>REL</b>	581	614	1195	4.6	3.5		
<b>VIF</b>	396	400	796	2.9			
<b>BG</b>	492	677	1169	4.0	3.4	66	33
<b>REY</b>	507	632	1139	4.1	3.3	96	30
<b>AVERAGE</b>	499	655	1154	4.0	3.4	81	32

\*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 2010**

	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
<b>BAMB*</b>	548	716	1264	4.8	3.6		34
<b>BIE</b>	506	692	1198	4.8	3.5		29
<b>BIO</b>	534	649	1183	4.6	3.5		30
<b>BMES*</b>	511	735	1246	4.2	3.6	125	37
<b>CABI*</b>	512	694	1206	4.6	3.6	25	37
<b>CHM</b>	435	742	1177	3.6	3.1	86	
<b>CNS</b>	571	602	1173	4.6	3.4		
<b>CNS M/Div</b>	535	635	1170	4.3	3.2		
<b>COM</b>	586	626	1212	4.7	3.5	105	
<b>COMD</b>							
<b>CPTS</b>	426	584	1010	4.3	3.5	161	
<b>CSC</b>	516	737	1253	4.0	3.6	93	
<b>DOC</b>	543	571	1114	4.5	3.4	118	
<b>EDU</b>	566	672	1238	4.5	3.6		
<b>ENG</b>	657	590	1247	5.0	3.6		
<b>HES</b>	491	650	1141	4.3	3.7		
<b>MCPA*</b>	556	664	1220	4.2	3.5		35
<b>MD/PhD</b>							33
<b>MICR*</b>	513	670	1183	4.1	3.3		34
<b>MLS</b>					2.2		
<b>MMTS*</b>	546	709	1255	4.5	3.6	26	33
<b>MOGN</b>	478	738	1216	3.8	3.3	95	
<b>MTH</b>	482	748	1230	4.0	3.5	92	
<b>NBAT</b>	575	690	1265	4.3	3.5	101	
<b>NUSC*</b>	572	695	1267	4.4	3.4	26	33
<b>PHY</b>	498	780	1278	4.0	3.6	95	
<b>PSPR</b>	491	707	1198	4.6	3.4	22	
<b>PSY</b>	609	705	1314	4.8	3.7		
<b>REL</b>	601	669	1270	4.8	3.7		
<b>VIF</b>	465	533	998				
<b>BG</b>	521	691	1212	4.3	3.5	73	35
<b>REY</b>	537	663	1200	4.4	3.4	98	30
<b>AVERAGE</b>	529	677	1206	4.4	3.5	85	32

\*Includes MD/PhD Accepted

TOEFL data reported as computer-based test results

TABLE 4C. MATRICULATED STUDENTS STANDARDIZED TEST SCORES AND GRADE POINT AVERAGES (GPA), FALL 2010

	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT Scores		
							Verb	Phys	Biol
BAMB	537	700	1237	4.3	3.6				
BIE	360	610	970	4.0	3.5				26
BIO	517	655	1172	4.5	3.4				30
BMES	493	734	1227	4.1	3.6	107			
CABI	527	663	1190	4.0	3.4				
CHM	444	754	1198	3.4	2.8	87			
CNS	589	600	1189	4.6	3.4				
CNS M/Div	535	635	1170	4.3	3.2				
COM	580	634	1214	4.7	3.5	101			
COMD									
CPTS	433	568	1001	4.3	3.5	161			
CSC	508	740	1248	4.0	3.7	93			
DOC	541	554	1095	4.5	3.5	118			
EDU	566	670	1236	4.5	3.6				
ENG	663	588	1251	4.9	3.7				
HES	491	650	1141	4.3	3.7				
MCPA	552	640	1192	4.2	3.6				
MD/PhD							10	12	11
MICR	513	670	1183	4.1	3.3				33
MLS					2.2				
MMTS	504	716	1220	4.8	3.6	30			
MOGN	478	738	1216	3.8	3.3	95			
MTH	489	740	1229	4.1	3.4	82			
NBAT	465	625	1090	3.5	3.5	101			
NUSC*	550	677	1227	4.4	3.3	22	10	12	11
PHY	472	779	1251	3.8	3.8	92			
PSPR	493	750	1243	4.8	3.4				
PSY	602	711	1313	4.8	3.7				
REL	610	680	1290	4.8	3.8				
VIF	465	534	999	3.4					
BG	504	680	1184	4.2	3.5	86	10	12	11
REY	527	658	1185	4.3	3.4	96			
AVERAGE	516	669	1185	4.2	3.4	91	10	12	11
									33

\*Includes MD/PhD Matriculants

TOEFL data are reported as computer-based test results

TABLE 5. STUDENT ENROLLMENT BY PROGRAM AND DEGREE, FALL 2010

	PhD Programs			Masters Programs	Unclassified	TOTAL
	PhD	MS	MD/PhD			
BAMB	18		2			20
BIE				20		20
BIO	28			9		37
BMES - WFU	33	2	1			36
BMES - VT	51	6				57
CABI	25					25
CHM	41					41
CNS				31		31
CNS M/Div				5		5
COM				28		28
COMD						0
CPTS				31		31
CSC				16		16
DOC				22		22
EDU				26		26
ENG				25		25
HES				15		15
MCPA	24					24
MICR	14		1			15
MLS				53		53
MMTS	24			2		26
MOGN	20	1	1			22
MTH				28		28
NBAT	11					11
NUSC	30		2			32
PHY	36			5		41
PSPR	24					24
PSY				23		23
REL				11		11
VIF				22		22
UNCL-BG					39	39
UNCL-REY					22	22
BG	274	9	7	33	39	362
REY	105	0	0	339	22	466
TOTAL	379	9	7	372	61	828

**TABLE 6. DEGREE-SEEKING STUDENT PROFILE BY PROGRAM, RACE AND ETHNICITY, INTERNATIONAL STATUS, FALL 2010**

	White		Black		Hispanic		Asian		Am Ind		International		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	TOTAL
BAMB*	7	8						1				4	20
BIE	3	12	1	1	2		1						20
BIO	16	13				1		1			3	3	37
BMES*	30	39	3			1	2	1			12	5	93
CABI	6	12		2			1	1			1	2	25
CHM	7	13		1				1			11	8	41
CNS	8	19	3	1									31
CNS M/Div	1	3		1									5
COM	8	10		1	1		1				3	4	28
COMD													0
CPTS	8	8	1	2			4				7	1	31
CSC	9	1			1						2	3	16
DOC	12	6		2				2					22
EDU	6	14	2	1		2		1					26
ENG	8	16					1						25
HES	2	12									1		15
MCPA	5	7		1				1			4	6	24
MD/PhD§	3	1						1			1	1	7
MICR*	2	10		2							1		15
MLS	16	27	2	7				1					53
MMTS	4	11	1	3	1			1			2	3	26
MOGN*	7	5	1					1			2	6	22
MTH	13	7		1	1			1			3	2	28
NBAT	1	3	1					1			2	3	11
NUSC*	13	16					1				2		32
PHY	21	5									12	3	41
PSPR	10	8									5	1	24
PSY	8	13					1	1					23
REL	8	3											11
VIF											3	19	22
BG	93	127	7	10	1	1	8	7	0	0	38	31	323
REY	146	174	8	16	5	3	4	8	0	0	38	42	444
TOTALS	239	301	15	26	6	4	12	15	0	0	76	73	767

§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 2010**

Country of Origin	Continuing Students	New Students	Programs of Study (# of Students)	
			Continuing	New
Argentina	1		NBAT (1)	
Australia	1		VIF (1)	
Austria	1		BIO (1)	
Barbados		1		MCPA (1)
Brazil	4		CHM (1); VIF (3)	
Cameroon	1	1	CPTS (1)	CPTS (1)
Canada	2		BIO (1); HES (1)	
China	30	21	BICM (1); BMES (3); CABI (1); CHEM (4); COM (3); MCPA (7); MMTS (1); MTH (1); MOGN (2); NBAT (1); PHY (6)	BMES (3); CHM (3); COM (1); CSC (2); MTH (3); PHY (7); PSPR (1); VIF (1)
Columbia	7		BIO (2); BMES (1); VIF (4)	
Denmark	1		COM (1)	
Egypt	1		CHM (1)	
El Salvadore	1		VIF (1)	
Germany	1		MMTS (1)	
Ghana	1		MICR (1)	
Guyana	1		BICM (1)	
India	25	6	BICM (1); BMES (3); CABI (1); CHM (8); CPTS (2); MCPA (1); MMTS (2); MOGN (4); NBAT (1); PHY (1); PSPR (1)	BMES (2); CHM (1); CSC (1); NBAT (1); PSPR (1)
Indonesia	2	1	CHM (1); MCPA (1)	MOGN (1)
Iran	1		BMES (1)	
Israel		2		BMES (1); NUSC (1)
Jamaica	2	2	VIF (2)	VIF (2)
Japan	1	1	CPTS (1)	COM (1)
Jordan	2		BICM (1); PSPR (1)	
Korea	3		BMES (3)	
New Zealand	2		VIF (2)	
Nicaragua		1		VIF (1)
Nigeria		1		CPTS (1)
Norway	1		NBAT (1)	
Pakistan	1		CPTS (1)	
Peru	3	1	BIO (2); CSC (1)	CSC (1)
Romania	5	1	COM (1); VIF (4)	VIF (1)
Russian Federation	3		CABI (1); NUSC (1); PHY (1)	
Sierra Leone	1		PSPR (1)	
Syrian Republic	1		CPTS (1)	
Thailand	1		MOGN (1)	
Venezuela		1		PSPR (1)
Viet Nam	1	1	MMTS (1)	MTH (1)
<b>BG</b>	<b>54</b>	<b>15</b>		
<b>REY</b>	<b>54</b>	<b>26</b>		
<b>TOTALS</b>	<b>108</b>	<b>41</b>		



**TABLE 8. DEGREES AWARDED BY PROGRAM AND  
DEGREE, 2010-2011 AY**

	PhD Programs		Masters Programs	<b>TOTAL</b>
	PhD	MS		
<b>BAMB</b>	5			<b>5</b>
<b>BIE</b>			8^	<b>8</b>
<b>BIO</b>	3		4	<b>7</b>
<b>BMES - WFU</b>	6	2		<b>8</b>
<b>BMES - VT</b>	11	6		<b>17</b>
<b>CABI</b>	4			<b>4</b>
<b>CHM</b>	10		1	<b>11</b>
<b>CNS</b>			14	<b>14</b>
<b>CNS M/Div</b>			3	<b>3</b>
<b>COM</b>			15	<b>15</b>
<b>COMD</b>				<b>0</b>
<b>CPTS</b>			6	<b>6</b>
<b>CSC</b>			3	<b>3</b>
<b>DOC</b>			7	<b>7</b>
<b>EDU</b>			28	<b>28</b>
<b>ENG</b>			10	<b>10</b>
<b>HES</b>			7	<b>7</b>
<b>MCPA</b>	2			<b>2</b>
<b>MICR</b>	5			<b>5</b>
<b>MLS</b>			23	<b>23</b>
<b>MMTS</b>	4			<b>4</b>
<b>MOGN</b>	10			<b>10</b>
<b>MTH</b>			8	<b>8</b>
<b>NBAT</b>	2			<b>2</b>
<b>NUSC*</b>	3			<b>3</b>
<b>PHY</b>	3		1	<b>4</b>
<b>PSPR</b>	1			<b>1</b>
<b>PSY</b>			11	<b>11</b>
<b>REL</b>			5^	<b>5</b>
<b>VIF</b>			7	<b>7</b>
<b>BG</b>	53	8	6	<b>67</b>
<b>REY</b>	16	0	155	<b>171</b>
<b>TOTAL</b>	<b>69</b>	<b>8</b>	<b>161</b>	<b>238</b>
<b>MD/PhD</b>	3			<b>3</b>

\*Includes MD/PhD Graduates

^Includes 1 JD/MA Graduate

TABLE 9A. TIME TO DEGREE BY PROGRAM, 2010-2011

	Number of Years*			
	PhD	MS	MA	MFA
BAMB	5.3			
BIE			1.4	
BIO	6.5	2.2		
BMES	4.6	2.3		
CABI	5.7			
CHM	5.7	3.0		
CNS			2.0	
CNS M/Div			2.0	
COM			2.1	
COMD				
CPTS		2.0		
CSC		3.2		
DOC***				1.0
EDU			1.3	
ENG			2.0	
HES		2.0		
MCPA	4.8			
MICR	4.5			
MLS**			4.6	
MTS	5.7			
MOGN	4.9			
MTH			2.2	
NBAT	6.0			
NUSC	4.9			
PHY	6.5	4.5		
PSPR	6.3			
PSY			2.1	
REL			3.6	
VIF**			3.0	
BG	5.3	2.2		
REY	6.2	3.0	2.1	1.0
AVERAGE	5.8	2.6	2.4	1.0

\*Average of Years from matriculation to awarding of the degree

\*\*VIF and MLS students are not included in the average because they are not full time programs

\*\*\*Two years coursework completed at the University of Florida

**TABLE 9B. DEGREE COMPLETION PERCENTAGES FOR FALL 2009  
MASTER'S MATRICULANTS AND FALL 2004 PHD MATRICULANTS**

	Matriculated			Graduated			% Completion		
	PhD	MS	MA	PhD	MS	MA	PhD	MS	MA
<b>BAMB</b>	8			7			88%		
<b>BIE</b>			18			6			33%
<b>BIO</b>	3	3		2	2		67%	67%	
<b>BMES</b>	11	7		7	2		64%	29%	
<b>CABI</b>	4			2			50%		
<b>CHM</b>	4			2			50%		
<b>CNS</b>			16			14			88%
<b>CNS M/Div</b>			3			3			100%
<b>COM</b>			15			10			67%
<b>COMD</b>		1							
<b>CPTS</b>		8			2			25%	
<b>CSC</b>		8			2			25%	
<b>EDU</b>			29			28			97%
<b>ENG</b>			12			10			83%
<b>HES</b>		8			7			88%	
<b>MCPA</b>	2			1			50%		
<b>MICR</b>	7			6			86%		
<b>MLS*</b>			12			5			
<b>MMTS</b>	3			3			100%		
<b>MOGN</b>	4			3			75%		
<b>MTH</b>			10			6			60%
<b>NBAT</b>	3			3			100%		
<b>NUSC</b>	8			4			50%		
<b>PHY</b>	4	2		3	1		75%	50%	
<b>PSPR</b>	6			6			100%		
<b>PSY</b>			11			6			55%
<b>REL</b>			5			2			40%
<b>VIF^</b>			7			7			100%
<b>BG</b>	56	16	0	42	4	0	76%	27%	
<b>REY</b>	11	21	138	7	12	97	64%	58%	72%
<b>TOTAL</b>	<b>67</b>	<b>37</b>	<b>138</b>	<b>49</b>	<b>16</b>	<b>97</b>	<b>70%</b>	<b>43%</b>	<b>72%</b>

\*MLS % not included/part-time program

^Summer 2008 matriculants/3 yr program

**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

Program	Undergraduate Institution	Degree	Plans
<b>BAMB</b>	Florida State University	PhD	Teaching, Location Unknown
	High Point University		Post Doc, WFUSM
	Quinnipiac University		Research Associate, University of Virginia
	Randolph Macon Woman's College		Unknown
	University of Pittsburgh		Business Development, Location Unknown
<b>BIE</b>	North Carolina State University	MA	Pursue MD at the University of Queensland
	Wake Forest University		Take a job in the future
	University of Texas at Austin		Pursue MD at unknown institution
	Wake Forest University		Pursue MD and MCV
	Mercer University at Macon		Pursue Doctorate in Osteopathic Medicine at Edward Via College of Osteopathic Medicine
	Guilford College		Pursue JD in Law from unknown institution; Take a Fellowship at WFU
	University of Michigan at Ann Arbor		Clinical Ethics Consultant at UNC Center for Bioethics
	Wofford College		Pursue an MD
<b>BIO</b>	Duke University	PhD	Post Doc at Harvard Forest
	Universidad de los Andes		Pursue a Post Doc in Biology; Research Assistant at WFU
	CUNY – Herbert H. Lehman College	MS	Position as a Post Doc
	Francis Marion University		Pursue PhD in Biology at WFU
	Wake Forest University		Pursue MD; Medical Scribe at Nasson Medical Center
	Miami University at Oxford		Pursue PhD; Laboratory Technician or Medical Lab Scientist
	Universidad Nacional de San Antonio		Pursue PhD in Biology at WFU
<b>BMES</b>	Anna University	PhD	Research/Teaching, Location Unknown
	Averett University		Post Doc, Evanston Hospital, Evanston, IL
	Harbin Institute of Technology		Senior Software Engineer, Location Unknown
	North Carolina State University		Post Doc, University of Cincinnati
	University of Tennessee – Knoxville	MS	Pursue MD, WFUSM
	Williams College		Unknown
	North Carolina State University		Unknown
<b>CABI</b>	University of Alabama - Birmingham		Biomedical Engineer, Location Unknown
	College of Saint Elizabeth	PhD	Post Doc, St. Jude Children's Research Hospital, Memphis, TN
	Pomona College		Post Doc, Location Unknown
	State University of Technology		Technology Transfer Manager, Location Unknown
	University of Houston		Post Doc, Yale University School of Medicine, New Haven, CT
<b>CHM</b>	Western Carolina University	PhD	Take a job in the future
	Virginia Tech		Post Doc Fellow at Massachusetts Institute of Technology
	Narandapur Ramakrishna Western Carolina University		Researcher at a university Entry level Chemist for the government

**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

<b>CHM</b>	Nanjing University	PhD	Research Scientist
	Lenoir-Rhyne College		Professional-Senior Scientist at RJ Reynolds Tobacco
	Sacred Heart University		Research Fellow
	Bogor Agricultural University		Post Doc at WFU
	Nankai University		Post Doc, Albert Einstein Medical School
	Winthrop University		Unknown
	University of Delhi		Post Doc, University of Missouri
	Wingate University	MS	Laboratory Technician at WFU
<b>COM</b>	Grand Valley State University	MA	Pursue PhD in Communication Studies at the University of Iowa
	Rhodes College		Pursue PhD in Communication; Moving Image Studios at Georgia State University
	University of Wyoming		Pursue PhD in Rhetoric and Communication at Indiana State University, Debate Coach at Indiana State University
	Northwestern University		Position in sales at Lenovo
	Communication University of China		Position in the communication field at NGO
	Northwestern Polytechnical University		Unknown
	University of the South		Unknown
	Utica College		Pursue a Master's degree in Education
	Denison University		Public Affairs Officer in the United States Army
	Wake Forest University		Pursue a PhD in Health Communication
	San Jose State University		Pursue a PhD in Communication Studies from the University of Georgia at Athens; Patient Advocate/patient representative
	University of Iasi		Research position at the University of Georgia
	University of Alabam at Tuscaloosa		Pursue a PhD in Communication at Texas A & M University
	Wayne State University		Pursue a PhD in Communication at Pittsburgh
	Shanghai International University		Unknown
<b>CPTS</b>	Elon University	MS	WFUBMC
	Gandhi Medical College		Clinician, Location Unknown
	Michigan State University		Geneticist, Location Unknown
	Stetson University		Researcher, WFUHS
	University of Bombay, India		Cardiologist, Location Unknown
	University of Maine		Cardiologist, Location Unknown
<b>CSC</b>	High Point University	MS	Developer at Scholar, LLC
	Southeast University		Unknown
	University of Virginia		Position as a Software Developer
<b>CNS</b>	North Carolina State University	MA	Position in Counseling
	Wake Forest University		Counselor in a community agency
	University of North Texas		Pursue PhD in Counseling; Position as Counselor In a community agency
	UNC-Greensboro		Supervision at Old Dominion University
	Wake Forest University		Pursue a PhD in Psychology; Position as counselor
	Washington State University		Unknown

**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

<b>CNS</b>	Wake Forest University	<b>MA</b>	Position as Clinical Mental Health Counselor
	Clark University		Position as Counselor at Hospice
	Loyola University at New Orleans		Position as school counselor
	North Carolina State University		Pursue a PhD in Counselor Education at UNCG
	University of Florida		Position as a community based mental health Counselor
	University of Kentucky at Lexington		Position as a School Counselor, Fayette County Public Schools, Lexington, KY
	James Madison University		Position as school counselor
	UNC-Chapel Hill		Position as school counselor
	College of William and Mary		Position as college counselor
	Wake Forest University		Unknown
	Furman University		Pursue a PhD; Position as a school counselor in public Charter schools
<b>DOC</b>	Michigan State University	<b>MFA</b>	Unknown
	Ithaca College		Position as filmmaker
	Indiana University – Pennsylvania		Unknown
	Bard College		Position as professor in a college or university
	Florida Atlantic University		Unknown
	University of Central Florida		Unknown
	University of Florida		Unknown
<b>EDU</b>	Universidad de Antioquia – Colombia	<b>MAEd</b>	Position as ESL teacher for Guilford County Schools
	Hartwick College		Pursue further education in educational leadership’
			Position as a social studies teacher
	Wake Forest University		Position as French teacher
	High Point University		Pursue a JD/PhD; Position as teacher
	Wake Forest University		Position as teacher in the NC Public School System
	UNC-Chapel Hill		Position as an English Teaching Assistant with TAPIF, France
	University of Bacau – Romania		Position as ESOL teacher in Mullen ES, PWCS, VA
	University of Mississippi		Position as a high school teacher
	Miami University – Ohio		Pursue a PhD; Position as high school English teacher
	Boston College		Pursue further education; Position as a teacher
	UNC-Chapel Hill		Position as a teacher
	University of Utah		Position as Spanish teacher in WSFC or Davidson County Schools
	UNC-Chapel Hill		Position as high school history teacher
			Pursue a MBA; Position as a teacher in NC Schools
	Wake Forest University		Position in education
	Boston University		Position as a French teacher in JourneyCorps/World Venture
	University of California – Santa Barbara		Position as director of debate and high school Teacher at either Niles West High School in Skokie, IL or New Trier Township High School In Winnetka, IL
	Wake Forest University		Pursue a doctoral degree in education; Position as a High school math teacher at Gaston Day School In Gastonia, NC
			Position as a teacher in WSFCS

**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

<b>EDU</b>	UNC – Chapel Hill	<b>MAEd</b>	Pursue a doctorate in education; Position as Peace Corps volunteer/teacher
	College of Charleston		Position as a high school English teacher in the NC Public School System
	Elon University		Pursue further education; Position as a teacher
	Wake Forest University		Position teaching English abroad with the French Embassy
	UNC-Chapel Hill		Position as a high school English teacher
	Universidad de Pamplona		Position as a high school Math teacher
	UNC-Chapel Hill		Pursue PhD in Education; Position as Spanish Teacher at Rock Hill School District 3
	Davidson College		Position as a high school English teacher
	University of Craiova – Romania		Pursue work
	UNC-Chapel Hill		Pursue PhD in Education; Position as an EFL teacher In the public schools
	University of the West Indies, Jamaica		Position as a social studies teacher for the state of NC
	Wake Forest University		Pursue PhD; Position as a teacher
	Universidade Estadual de Ceara-Brazil		Pursue JD, MA or PhD in English or Education; Position in Education or writing
<b>ENG</b>	University of Virginia	<b>MA</b>	Position as teacher in Prince William County Public Schools in Virginia
	UNC-Chapel Hill		Position as freelance writer
	Wake Forest University		Unknown
			Unknown
			Pursue MS in Library Science at the University of Pittsburgh
	Furman University		Unknown
	Wheaton College		Pursue PhD in English, University of Notre Dame
	Duke University		Pursue PhD in English; Position as adjunct English Teacher at The Citadel
	Salem College		Pursue PhD in English; Position as Editor/Writer For Classical Conversations
	Saint Mary's College		Unknown
<b>HES</b>	University of Hartford		Pursue a PhD in English at Boston College
	Greensboro College	<b>MS</b>	Unknown
	McMasters University		Pursue PhD in Exercise Science, UNC
	UNC-Chapel Hill		Position in Cardiac Rehabilitation at a hospital
	Virginia Tech		Position as researcher
	University of New Hampshire-Durham		Unknown
	University of Dayton		Pursue PhD in Kinesiology, University of Illinois At Chicago
<b>MCPA</b>	Taylor University		Position as researcher at WFBMC
	Fudan University	<b>PhD</b>	Post Doc, Location Unknown
	Shanghai Medical University		Post Doc, UT Southwestern Medical Center, Dallas, TX
<b>MICR</b>	Furman University	<b>PhD</b>	Assistant Professor, Lincoln Memorial University, Harrogate, TN

**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

<b>MICR</b>	Georgetown University Mississippi State University Rochester Institute of Technology Winston-Salem State University		Pursue MD, WFUSM Unknown Post Doc, University of Michigan, Ann Arbor, MI Teaching, Winston-Salem State University
<b>MLS</b>	Salem College  Appalachian State University  Wake Forest University UNC-Greensboro  Wake Forest University  Davidson College Elon University Johnson C. Smith University  Catawba College Salem College Catawba College Clarion University  Princeton University Guilford College  Queens University at Charlotte Salem College  High Point University Wake Forest University University of Kentucky-Lexington UNC-Charlotte Salem College Kansas City Art Institute Appalachian State University	<b>MALS</b>	Pursue certification in Nonprofit Management at UNCG; Grants Manager at the Winston-Salem Foundation Pursue a PhD in Humanities, Liberal Arts, or Communication, Rhetoric and Digital Media at Either Georgetown, Stanford, FSU, or NCSU; Instructor at unknown institution Unknown Pursue licensure for principal or Ed. S. at either ASU or UNCG Pursue a Master's in Business Administration – HealthCare Management at UNCC; Project Analyst at Hearst Corporation Take a job in the future Unknown Pursue MS in Education specializing in Reading, University of Virginia Unknown Teach in WSFCS Unknown Pursue PhD or DEd in Liberal Studies, Georgetown University; Stay in current position at the Academic Library at Greensboro College Unknown Pursue a PhD in Psychology; Position as a high School teacher Staying in current position Staying in current position; Histology Supervisor at WFU Health Sciences Unknown Pursue an MBA at ECU Unknown Teacher, WSFCS Unknown Position as Design Director Unknown
<b>MMTS</b>	Livingstone College New Mexico Institute of Mining And Technology Ohio Wesleyan University Winston-Salem State University	<b>PhD</b>	Post Doc, Location Unknown Post Doc, Location Unknown  Post Doc, WFUSM Post Doc, Location Unknown
<b>MOGN</b>	Appalachian State University	<b>PhD</b>	Research Fellow, Location Unknown Post Doc, Texas Biomedical Research Institute, San Antonio, TX



**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

<b>MOGN</b>	Campbell University	PhD	Post Doc, Location Unknown
	Peking Union Medical College		Post Doc, Location Unknown
	Ramathibodi Hospital		Doctor, Mahidol University, Thailand
	St. Xaviers' College		Post Doc, National Institutes of Health, Bethesda, MD
	Tianjin Medical University		Post Doc, Location Unknown
	University of Virginia		Pursue MD, WFUSM
	University of Wisconsin – Madison		Post Doc, WFUBMC
	Wayne State University		Post Doc, UNC Chapel Hill, Chapel Hill, NC
<b>MTH</b>	National University of Engineering-Lima	MA	Pursue PhD in Mathematics at an unknown Institution; Take a faculty position
	Wake Forest University		Pursue PhD in Mathematics from NCSU
	Skidmore College		Position as private high school math teacher
	Grove City College		Position as a middle school math teacher at Norfolk Collegiate School
	Wake Forest University		Position as Analyst/Researcher
	Berry College		Pursue a PhD in Mathematics; Position as Mathematics instructor at a community college or University
	Elizabethtown College		Pursue MS in Computer Science at WFU
	Wake Forest University		Pursue Doctorate in Economics; Position as Commodity Derivatives Analyst at Wells Fargo
<b>NBAT</b>	Howard University	PhD	Post Doc, Torrey Pines Institute for Molecular Studies, San Diego, CA
	University of Kentucky		Unknown
<b>NUSC</b>	Bates College	PhD	Post Doc, United States Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, MD
	University of Michigan		Physician, Location Unknown
	University of Puerto Rico		Post Doc, National Institutes of Health, Bethesda, MD
<b>PHY</b>	St. Lawrence University	PhD	Post Doc Researcher at unknown institution
	Wake Forest University		Post Doc, University of Pittsburgh
	University of Florida		Unknown
	Guilford College	MS	Pursue PhD in Physics at WFU
<b>PSPR</b>	Berry College	PhD	Post Doc, Columbia University, New York, NY
<b>PSY</b>	United States Air Force Academy	MA	Behavioral Influences Operations Analyst as an Officer in the United States Air Force
	Butler University		Pursue PhD in Clinical Psychology, Illinois Institute Of Technology; Instructor at a university
	Southwestern University		Pursue PhD in Neuroscience, Texas A&M University
	Purdue University at West Lafayette		Pursue PhD in Social Psychology, Texas Tech
	Indiana University at Bloomington		Counselor at Talisman Academy
	Wake Forest University		Unknown

**TABLE 10. PLACEMENT BY PROGRAM, UNDERGRADUATE INSTITUTION, DEGREE, AND PLANS, 2010-2011, AY**

<b>PSY</b>	Duke University	MA	Pursue PhD in Clinical Psychology, George Mason University
	Villanova University		Pursue PhD in Counseling Psychology
	Indiana University at Bloomington		Unknown
	Stanford University		Pursue PhD in Social Psychology, University of Southern California
	Rice University		Pursue PhD in Marketing, University of Minnesota
<b>REL</b>	Whitman College	MA	Pursue PhD in Religion, Duke University
	Wake Forest University		Position as attorney
	Maryville College of Tennessee		Pursue PhD in Theology, Duke University; Position As clergy at Disciples of Christ
	Campbell University		Pursue MA in Religion, Yale University; Position In retail
	University of Delaware		Pursue PhD in Religion, Drew University

**TABLE 11. FINANCIAL AID AMOUNT BY PROGRAM, 2010-2011 AY**

	<b>Tuition#</b>	<b>Per Course Tuition</b>	<b>Stipend*</b>	<b>Fellowship</b>	<b>Dean's Assistantships</b>
<b>BAMB</b>	31,570		23,942		
<b>BIE</b>	31,270				
<b>BIO-MS 1st</b>	31,270		18,000		
<b>BIO-MS 2nd</b>	31,270		15,000		
<b>BIO - PhD</b>	31,270		21,000		23,000
<b>BMES</b>	31,570		23,942		
<b>CABI</b>	31,570		23,942		
<b>CHM</b>	31,270		21,500		23,500
<b>CNS</b>	31,270		8,400		
<b>CNS M/DIV</b>	31,270				
<b>COM</b>	31,270		8,400	4,200	
<b>COMD</b>					
<b>CPTS</b>	31,570		23,942		
<b>CSC</b>	31,270		13,000		
<b>DOC</b>	31,270				
<b>EDU</b>	31,270		6,300		
<b>ENG</b>	31,270		8,400	4,200	
<b>HES</b>	31,270		10,000		
<b>MCPA</b>	31,570		23,942		
<b>MD/PhD</b>	31,570		23,942		
<b>MICR</b>	31,570		23,942		
<b>MLS</b>		1,086			
<b>MMTS</b>	31,570		23,942		
<b>MOGN</b>	31,570		23,942		
<b>MTH</b>	31,270		11,000	4,200	
<b>NBAT</b>	31,570		23,942		
<b>NUSC</b>	31,570		23,942		
<b>PHY</b>	31,270		20,000		22,000
<b>PSPR</b>	31,570		23,942		
<b>PSY</b>	31,270		9,000		
<b>REL</b>	31,270		8,400	4,200	
<b>VIF</b>		480			

#Tuition of \$31,570 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, 2010-2011 AY

	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
<b>BAMB</b>	4						15		1		20
<b>BIE</b>				11						9	20
<b>BIO</b>		1	25	1	1		8			1	37
<b>BMES*-WFU</b>	6			1			26		3		36
<b>BMES - VT§</b>											0
<b>CABI</b>	3			3		6	8		5		25
<b>CHM</b>		1	23				12			5	41
<b>CNS</b>			4	6	17		1	3			31
<b>CNS M/Div</b>					5						5
<b>COM</b>			16	1	9			1		1	28
<b>COMD</b>											0
<b>CPTS</b>					5	10	3			13	31
<b>CSC</b>			12		2		1			1	16
<b>DOC</b>					21			1			22
<b>EDU</b>	9		5		4	7		1			26
<b>ENG</b>	2		5		18						25
<b>HES</b>			14		1						15
<b>MCPA</b>	3					6	13		2		24
<b>MICR*</b>	5					3	7				15
<b>MLS</b>				14						39	53
<b>MMTS*</b>	4						20		2		26
<b>MOGN*</b>	4					1	17				22
<b>MTH</b>	1		15		8		3			1	28
<b>NBAT*</b>	2						7		2		11
<b>NUSC*</b>	8				3	7	11		3		32
<b>PHY</b>		1	20	3	1		13		1	2	41
<b>PSPR</b>	3			1	3	5	11			1	24

TABLE 12. SOURCES OF FINANCIAL AID BY PROGRAM AND TYPE OF SUPPORT, 2010-2011 AY

	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
PSY			13		4		5	1		23
REL	1		2		6					2
VIF										22
UNCL-BG				19		15	3			2
UNCL-REY				8	1					6
BG	42	0	0	24	11	53	141	0	18	16
REY	13	3	154	44	98	7	43	7	1	89
TOTAL	55	3	154	68	109	60	184	7	19	105
										764

\*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

Donald Bowden, Molecular Genetics & Genomics PhD  
Bridget Brosnihan & Richard Loeser (co-directors), Molecular Medicine & Translational Science MS, PhD  
Mary Dalton & Sandy Dickson (co-directors), Documentary Film MA, MFA  
Wanda Duncan, Liberal Studies MALS  
R. Michael Furr, Psychology MA  
Ann Geiger & Bob Byington (co-directors), Clinical & Population Translational Sciences MS, MS/MD  
Samuel Gladding, Counseling MA, MA/MDiv  
Dwayne Godwin, PhD (any field)/MBA  
Martin Guthold, Physics MS, PhD  
Kenneth Hoglund, Religion MA, joint MA/JD  
David John & Erin Fulp (co-directors), Computer Science MS  
Paul Jones, Chemistry MS, PhD  
Sara Jones & Jeff Weiner (co-directors), Physiology & Pharmacology 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  
David Ornelles, Microbiology & Immunology PhD  
Gillian Overing & Gale Sigal, Medieval Studies Certificate  
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  
Karin Scarpinato, Cancer Biology PhD  
Brian Tague, Biology MS, PhD  
Brad Tharpe, Bioethics MA, Certificate, MA/JD, MA/MD  
Suzy Torti, Biochemistry and Molecular Biology PhD  
Eric Wilson, English MA  
Charles Wood, Comparative Medicine MS

#### GRADUATE COUNCIL MEMBERS

Samuel Amoah, GSA Representative, Bowman Gray, Co-Chair  
Christa Colyer, Credentials/Nominations Committee Member  
Scott Cramer, Credentials/Nominations Committee Chair  
Susan Fahrback, Secretary, Credentials/Nominations Committee Member  
Ann Geiger, Credentials/Nominations Committee Member  
David John, Secretary, Curriculum Committee Member

Anthony Liguori, Curriculum Committee Member  
Allan Loudon, Policy Committee Member  
Carol Milligan, Curriculum Committee Chair  
Fred Salisbury, Secretary, Curriculum Committee Member  
Greg Shelness, Policy Committee Member  
Mike Tytell, Policy Committee Member  
Eric Wilson, Policy Committee Chair  
Brittany Wyche, GSA Representative, Reynolda, Co-Chair

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

FACULTY GRIEVANCE LIAISONS

Debbie Best, Psychology  
Steve Kridel, Cancer Biology

STUDENT GRIEVANCE LIAISONS

Doug Case, Public Health Sciences-Biostatistics  
Donna Henderson, Counseling

HONOR CODE PANEL MEMBERS

Faculty:

Ken Berenhaut  
Uli Bierbach  
Terry Blumenthal  
Eric Carlson  
Craig Henkel  
Donna Henderson  
Marina Krcmar  
Steve Kridel  
Brian McCool  
John Parks  
Paul Pauca  
Kate Saul  
Gale Sigal  
Shay Soker  
Edward Swords  
Frank Tupper  
Michael Tytell

Students:

Tasha Adams  
Stephen Baker  
Greg Bartley  
Aaron Corcoran  
Daniel Elliot  
Leigh Graham  
Robert Gould  
Amber Harris  
John Hepler  
Annisia Huhn  
Carolyn Jones  
Caleb Lord  
Katie Martucci  
Joe McQail  
Peter Meindl  
Tommy Minta  
Quinn Morris  
Khalil Murad  
Van Nguyen  
Erin Reddan  
Stacy Reeves  
Caroline Schnegg  
John Scott  
Nathan Shurte  
Roberta Turner

B. List of Graduate School Staff

Lisa Canada, Administrative Secretary, *Bowman Gray Campus*  
Debbie Deheck, Assistant to the Dean/Business Manager, *Reynolda Campus*  
Carol DiGiantomaso, 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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