Annual Report - 2009-2010

WAKE FOREST UNIVERSITY GRADUATE SCHOOL OF ARTS AND SCIENCES





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1. INTRODUCTION

The Graduate School is distinct from other parts of the University as our mission is focused on **discovery** and the **preparation of the next generation of teachers and scholars** to be the discoverers of tomorrow. Our specific goals are to promote a culture of collaboration, build exceptional leaders, and strengthen connections inside and outside of WFU. Some of our banner achievements during the 2009-10 year were:

- Completion of the Masters and Doctoral Task Force Reports, leading to a new vision for WFU graduate research and education;
- Continuing our firm dedication to diversity by doubling the number of US racial and ethnic minority applications; and
- Advancing our emphasis on the whole scholar by initiating university-wide Responsible Conduct of Research (RCR) and Teaching-Assistant (TA) training programs.

For promoting a **culture of collaboration**, our Masters and Doctoral Task Forces <u>increased the visibility</u>, <u>clarity of purpose</u>, and financial support for our programs. New programs and expansion of existing ones have led to a 31% rise in applications and 22% increase in matriculants over the past five (5) years. We increased financial support by awarding more assistantships and raising stipends, but more progress is needed as our stipends are still below the levels of our competitors. In the year ahead we will continue to <u>broaden our financial base so as to enable a further increase in stipends</u>, update our publicity materials, and implement a marketing plan.

For **building exceptional leaders**, we <u>doubled the number of applications from US racial or ethnic</u> <u>minorities</u> over the past five (5) years. The percent of minorities extended offers of admission increased as well, but minority representation among matriculants has changed little, prompting us to plan new recruiting and student-support initiatives. Substantial progress for expanding <u>professional development</u> <u>programs</u> was realized with the advent of university-wide graduate student RCR and TA training programs. We will develop bold new recruiting initiatives in the coming year including <u>partnership</u> <u>programs</u> with minority-serving institutions and <u>innovative means for enhancing student support</u>.

We **strengthened connections inside and outside of WFU** by introducing <u>new masters programs</u> and <u>interdisciplinary doctoral "tracks"</u>. Continued development of new programs is anticipated in the year ahead. The high proportion of students who complete their degrees within desired time frames and large number of presentations at professional meetings, student awards, and publications demonstrate our <u>high productivity</u>. The Office of Postdoctoral Affairs housed within the Graduate School has expanded its services with the advent of a website, Scholar Development Awards, updated materials, and array of workshops and other career development activities.

We expect the progress realized in the past year and plans for continuing these initiatives in the coming year <u>will place us at the forefront of graduate education</u>. We look forward to working with all sectors of the University to realize our mission and meet our common quest of serving humankind, *pro humanitate*.

2. HIGHLIGHTS OF FACULTY AND GRADUATE STUDENT/POSTDOC ACHIEVEMENTS

A. Highlights of degree or certificate programs

BIOCHEMISTRY & MOLECULAR BIOLOGY PhD students made seven (7) presentations at national meetings, received four (4) travel awards from University or other sources, and published seven (7) peer-reviewed journal articles (including five [5] as 1st authors). A student attended specialized courses at Brookhaven and Oak Ridge national labs and another participated in North Carolina science-outreach activities. Postdocs were active in making presentations at national meetings. Faculty led the recently developed Drug Discovery, Design and Development course that is taught by a cross-campus faculty and was attended by 15 students from Bowman Gray and Reynolda departments/programs. Students from this course will carry out internships this summer at Targacept as Dreyfus Discovers. Faculty members undertook other leadership roles in the Graduate School, including chairing the Doctoral Task Force and the newly-formed working group for implementing the Molecular and Cellular Bioscience PhD Track.

BIOETHICS. It is an exciting time to be involved in the Master of Arts in Bioethics program. The program exceeded its enrollment goals in its 1st year, and the inaugural class is diverse, talented, and passionate about bioethics. Our initial graduates are anticipated in August, and a strong incoming class will join 15 continuing students in the Fall 2010. The Graduate Certificate program and dual degree programs with the Schools of Medicine and Law are in place and attracting applicants. A dual degree with the School of Divinity was approved this year and will begin shortly. Established in July 2009, the new Center for Bioethics, Health, and Society (CBHS) enhances the MA program by providing bioethics resources for students, faculty, staff, and the broader community. Dr. Ana Iltis, the new Director of the CBHS, joins the MA in Bioethics faculty in the summer 2010.

BIOLOGY had a successful year with the recruitment of a new faculty in landscape ecology and targeting future hires. Space is being upgraded with renovation of the foyer and teaching labs to accommodate continued enrollment increases, reaching 1200 students this past year. Given this enrollment increase, the Graduate School and the Provost were able to increase the numbers of TAs and stipends, bringing the doctoral stipend to NIH-competitive levels. Biology faculty served as research mentors to 37 PhD and MS students (more than any other department), published 46 papers, made 47 presentations at national meetings, and achieved a 55% success rate for 27 external grant proposals submitted for a total of \$2.65M in funding. Students are drawn chiefly from Biology but also Neuroscience and other biomedical programs. Six (6) MS and six (6) PhD students graduated in 2009-10 and the numbers of applicants rose substantially as well. A new NIH grant was secured in partnership with Winston-Salem State University for training undergraduate minority students in neuroscience. Faculty won excellence awards for advising, teaching and teaching-scholarship and for the 2nd year in a row, a Biology student won a Melson Outstanding Graduate Student award. Biology faculty organized conferences in the areas of energy policy, biology, and neuroscience. New center proposals and a training grant were advanced in Molecular Communication and a new center proposal in energy. Biology faculty paid key roles in the development of the Graduate School's TA-training and the Responsible Conduct of Research programs.

BIOMEDICAL ENGINEERING completed its 8th year in the joint Virginia Tech - WFU School of Biomedical Engineering and Sciences. The WFU component currently houses 27 MS and PhD students with twelve (12) new students expected to join the WFU program in the fall. One (1) PhD and two (2) MS students graduated, including one (1) who is continuing in the PhD program. A new student chapter of the Biomedical Engineering Society was established. Students received national awards, including fellowships from NSF and the American Heart Association, and the Mass Media Science & Engineering Fellowship Award from the American Association for the Advancement of Science (AAAS).

The CANCER BIOLOGY program has been very successful in attracting excellent students with a high rate of degree completion, aided over the past 10 years by a NCI training grant. The two (2) PhD graduates in 2009/2010 are continuing their scientific careers as postdoctoral fellows at the Singapore Institute for Clinical Sciences and a scientific writer. Trainees have been extraordinarily successful in obtaining extramural funding with fellowships having been received from the Department of Defense (three [3] students) and the American Foundation for Aging Research (Glaxo Smith Kline), as well as from the WFU Alumni Student Travel and other sources for attendance at national meetings. The Cancer Biology Department has made a concerted effort to support such efforts by recruiting high quality and diverse students, providing a grant writing workshop for students and fellows, increasing the total number of fellows to 14, and strengthening our postdoctoral fellowship training program with a special seminar series for improving interview skills.

The CHEMISTRY program is proud of its record as a "niche" program – small, personal yet research intensive – and its growing collaborations with Reynolda and Bowman Gray departments and centers. It had a productive year with three (3) students completing the PhD and two (2) students the MS degree. In 2009, Chemistry faculty published 42 peer-reviewed manuscripts (a 31% increase relative to 2008) with 17 graduate student co-authors, and delivered 53 scientific presentations at national and international conferences with 16 graduate students as co-authors/presenters. Grants were submitted by 14 faculty members to 16 different agencies/foundations, with awards beginning in 2009 of more than \$5M. Two (2) graduate students won Richter Awards for international summer research projects. Plans are being made for expanding summer international as well as regional research experiences. Chemistry faculty participated in the new cross-campus Drug Discovery course, developed a new course in Chemical Biology, and received the Reynolda Campus Award for Excellence in Research. Forty-two (42) graduate students are expected in the Fall 2010, including seven (7) incoming students. The Department is appreciative of the stipend increase and provisioning of health insurance benefits for doctoral students, as both have helped in recruiting high-quality students, and the Responsible Conduct of Research (RCR) training program provided by the Graduate School.

The CLINICAL AND POPULATION TRANSLATIONAL SCIENCES program (CPTS) recruited nine (9) new MS students to its 2nd cohort in the fall of 2009. Students enrolled in prior health-research programs continue to be mentored, with eight (8) completing their degrees during the past year. Students from the current and prior programs made a total of 12 research presentations at national meetings and five (5) students published a total of seven (7) 1st-authored, peer-reviewed publications. The CPTS program replaced former courses with new courses: "Conceptual Foundations of Community and Health Services Research", which focuses on developing specific aims along with related literature reviews and conceptual frameworks, and "Research Design and Measurement Methods for Community and Health Services Research", which focuses on study design and data collection methodologies. Current activities include an effort to decrease the time to degree completion.

The COMMUNICATION program underwent a major revamping in 2009-10 to expand the numbers of entering MA students from approximately nine (9) to 17. As of August 2010, 100% of the students entering in the Fall 2008 will have graduated. Emphasis was placed on submission of research at regional and national conferences; all 1st year and four (4) 2nd year students made, in total, 22 presentations that netted, in turn, two (2) "best paper" awards. Graduate students won Hearst, Richter and WFU Alumni Travel Awards. Students actively contributed to faculty publications, the

Argumentation Conference held in March, and in seminars offered by visiting scholars. The Department is looking forward to increasing opportunities to interact with students and faculty in the Bioethics and Documentary Film programs.

COMPUTER SCIENCE admitted 10 new MS students in the Fall 2009, all of which received some form of financial aid, including teaching and research assistantships as well as full scholarship support from the Republic of Turkey. Continuing students were also supported during summer months as research assistants in the WFU Departments of Biomedical Engineering, Biostatistics, Computer Science, Mathematics, and Physics or the DOE facility at Pacific Northwest Labs. Seven (7) students were awarded their MS degree in May 2010 -- five (5) graduating with the thesis option, one with the project option, and one with the course-only option -- and one (1) additional student is expected to graduate in August 2010 under the project option. Two (2) students left the program for family or academic reasons. Three (3) are continuing their graduate studies in PhD programs in computer science (Toronto and Emory) or Genomics (WFU), one (1) will return to WFU to complete his MD, and one has formed a WFU-affiliated company. One of last year's graduates has been accepted into multiple PhD programs and has chosen to attend Vanderbilt. The program administration will change in the coming year with Professor Fulp becoming course advisor for all graduate students and Professor John continuing as the graduate program director. The Department has taken an active role in developing new initiatives with Spelman College for increasing the number of women in the graduate program, for developing new programs in the areas of health informatics in collaboration with other WFU departments, and for updating its website which last year was visited by 9,659 persons from all over the world. Faculty and students co-authored four (4) journal publications -- three (3) of which featured students as 1st authors -- and submitted an additional four (4) articles and eight (8) presentations at national or regional meetings.

COUNSELING had another productive year, celebrating its 40th year as a MA-granting program with a well-attended alumni reunion. Each of its four (4) full-time faculty published a book and, collectively, six (6) refereed journal articles and six (6) book chapters; and made 40 professional presentations. Its two (2) programs (Clinical Mental Health Counseling and School Counseling) underwent successful reaccreditation review by the Council on the Accreditation of Counseling and Related Educational Programs. Faculty and students provided 12,000 hr pro bono counseling services to agencies and schools in the community. Other forms of departmental service included chairing the Graduate School's Masters Task Force, and providing international counseling courses in Bhutan and Estonia. Its faculty received honors, one becoming a Fellow in the American Counseling Association (ACA), and several receiving prestigious awards from the American Counseling Association and the International Association of Marriage and Family Counselors. Eighteen (18) students entered in the Fall 2009 and fifteen (15) new students, selected from over 175 applicants, will join the program in the Fall 2010. Plans are underway to create an undergraduate minor in Health and Human Services and to offer four (4) undergraduate career courses. A new faculty who has a continuing appointment with the Medical School will join the department in the fall, and have undergraduate as well as graduate teaching and grant-writing activities.

New MA and MFA programs in DOCUMENTARY FILM were proposed and approved to enroll students in the Fall 2011. While modified to fit the WFU environment, this program has long been active at the University of Florida where it had a distinguished record of achievement. Several of its faculty as well as students seeking the MFA degree will join the WFU program. During the past year, its directors were busily engaged in developing new courses, two (2) of which were taught at the undergraduate level, and continuing to work on several films including post-production of a major documentary and distribution-

related work pertaining to Holocaust events. Other activities involved setting up recruiting, curriculum, website, film screenings and publicity-related events to ensure an excellent, diverse group of incoming students for putting *pro humanitate* into practice.

It has been another busy year for the EDUCATION program. The faculty had a productive year, aided by the receipt of internal and external awards for developing new MA Ed initiatives. A particular achievement was the receipt of a NSF Noyce grant and the recruitment of the inaugural class for this masters program in which seven (7) students will be trained each year as high school teachers in biology, chemistry, math and physics. The faculty published 10 journal articles, authored or co-authored six (6) book chapters, and gave presentations at 36 state, national or international conferences. Twenty-three (23) graduate students completed the student-teaching internship in May, and earned the North Carolina Teaching License. Several graduate students presented with faculty at state and national professional meetings, including the North Carolina Council of Teachers of Mathematics and the National Council for Teaching English. The Department completed the "revisioning" required by the State Board of Education for its 18-licensure programs along with its required evaluation rubrics, and is preparing an ongoing assessment system for the coming year. Over 150 teachers participated in the summer Advanced Placement (AP) Institute, which consists of a week of intensive training in subjects for which AP credit can be obtained in high schools around the country. Students are serving next year not only as teaching assistants (TAs) for undergraduates gaining their teaching license but also in the Graduate School's TA-training program by providing classroom visits, peer advising, and follow-up assistance to the ~55 incoming TAs working across the Reynolda departments.

The ENGLISH department enjoyed a "career year" with many of its faculty receiving national and international awards or other forms of recognition; these included important scholarship efforts in Medieval Studies and providing the Poteat Lecture. Ten (10) students received their MA degrees and a record number (14) of talented new students were recruited. Students made four (4) presentations at national or international conferences, two (2) won Richter Scholarships for summer research in New Zealand, Ireland or England, and another received the Department's Drake Award for the Outstanding Graduate Student. New faculty were hired in Shakespeare, the Writing program, and other areas. Graduate forums were held on professional issues concerning PhD study, conference attendance, and the MA thesis process. Graduate students served key roles in the Writing Center and helped with a range of programs in the department.

The HEALTH AND EXERCISE SCIENCE program continues to be a leader in the field of chronic disease research across the lifespan and to be broadly collaborative, having research or educational partnerships with 24 WFU Reynolda or Bowman Gray programs. Three (3) MS students presented their research at regional or national meetings with a record number of students (3) gaining positions in elite exercise science PhD programs. The faculty advised on average one (1) graduate and two (2) undergraduate students, 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 \$1,547,745. The formal review process for all departmental TAs instituted several years ago was refined via a several step process such that lectures were updated, TAs provided with additional information about the topic and specific teaching techniques, and then the TAs evaluated on several occasions when they presented these lectures. An outside consultant was hired to redesign and manage our departmental website in order to increase exposure to campus and national communities. HES faculty are 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 Integrative Physiology and Pharmacology Track being formed as the

result of recommendations from the Doctoral Task Force. Community outreach was served by faculty serving on numerous University and national committees and by the faculty and graduate student's operation of the Healthy Exercise and Lifestyle Programs (HELPS) that provides assistance for management of chronic disease to over 250 persons per week in the community, including many WFU faculty or staff.

The interdisciplinary MASTER OF ARTS IN LIBERAL STUDIES program accepted 14 new students, bringing the total of active students to 75 at the end of the academic year. Nine (9) graduated, raising the total number of degrees awarded since program inception in 1986 to 207. A non-thesis option, which will allow students to enroll in two (2) additional courses and write a synthesizing essay about their experience in the program in lieu of writing a master's thesis, was approved and will take effect July 1, 2010. The program has suspended applications while it undergoes a formal program review by both internal and external committees, which will be completed by December 1, 2010.

In 2009-10, the graduate program in MATHEMATICS was comprised of 10, 1st year MA and nine (9) 2nd year MA students, five (5) of whom completed theses (including one who is completing work this summer) and four (4) of whom are planning to continue their graduate studies in education (1) or mathematics (3). Our students or former students won accolades, with the receipt of a research award at the Graduate Student Research Day and recognition as the 2010-11 Teacher of the Year in the Winston-Salem/Forsyth County Schools. Our recruiting efforts were highly successful with 17 new students coming in the Fall 2010 from California, China, Oregon, and Vietnam. These students will be supported with TA- or GA- (9), RA-ships (1), or partial tuition scholarships. A new GA position has been created for helping with data acquisition and analysis for the newly formed Institute for Public Engagement. In an effort to increase student diversity and with support from the Graduate School, we invited three (3) faculty from the Mathematics Department at Spelman College in Atlanta to visit, sparking much enthusiasm from both institutions. Together with other WFU graduate programs, we will continue to work on developing this relationship and hope it will provide a model for building partnerships with other institutions.

The Certificate Program in MEDIEVAL STUDIES completed its 2nd year of operation and graduated its 1st student, who in turn received the English Department's best student award. WFU faculty or students gave talks at medieval studies-related national or international conferences, with one of the three (3) currently-enrolled students receiving the Robert M Shorter Prize for excellence in medieval studies and making a presentation at the prestigious International Conference on Medieval Studies. Two (2) MA students will attend an international medieval conference this coming year and new courses are being planned, particularly in relation to a multi-media performance of *Beowolf*.

Six (6) students completed their PhD degree in the MICROBIOLOGY AND IMMUNOLOGY program, with all plus others in the program presenting their research at national and international conferences. The Department continues to maintain a vigorous program of research with emerging collaborations with Biochemistry, Cancer Biology, and Molecular Medicine.

MOLECULAR PATHOLOGY students continue to excel in terms of awards, presentations, grants, and publications as does its faculty as members of journal editorial boards and boards of directors for national meetings. Six (6) PhD students made scientific presentations at local and international meetings, including one (1) selected for oral presentation at the Keystone Symposia on Molecular and Cellular Biology in Banff, Alberta, Canada. Two (2) students have been successful in obtaining American Heart Association pre-doctoral fellowships. Two (2) students won awards for poster presentations at

the 10th Annual Graduate Student and Postdoc research day at WFU. Finally six (6) students were coauthors for journal articles published this year.

The interdisciplinary MOLECULAR GENETICS AND GENOMICS program includes 24 graduate students and 80 faculty members from nine (9) Bowman Gray basic science, six (6) clinical, and three (3) Reynolda departments. Three (3) graduated with the PhD degree this year. A major new initiative was begun with the implementation of a specialty emphasizing genetic analysis in which two (2) students will enroll next fall. The program was pleased to learn that a former student and current faculty member at the University of Arizona received the prestigious Presidential Early Career Award for Scientists and Engineers in the Fall 2009.

The MOLECULAR MEDICINE AND TRANSLATIONAL SCIENCE program graduated five (5) PhD students, with three (3) having accepted postdoctoral fellowships at Georgetown University, SUNY-Stony Brook, or here at WFU or becoming an instructor at Guilford Technical Community College. Current students helped generate 40 manuscripts, with 31 having been published or in press (including 12 with graduate students as 1st authors), and three (3) participating in eight (8) national or regional meetings where they won three (3) "best presentation" awards. The faculty likewise has been very successful, publishing 56 articles with 12 as 1st or sole author and 17 as senior author. Five (5) new students will join the program in the fall, coming from North Carolina (2), India (1), California (1) or Louisiana (1).

PhD students in the NEUROBIOLOGY AND ANATOMY program were recipients of NIH National Research Service Awards (NRSA) for fellowship support (2), an Alumni Student Travel Award (1), and a 2009 Fine Science Tools award to attend the October Society for Neuroscience Annual Meeting in Chicago, IL. A recent graduate of our PhD/MBA program received the award for academic excellence from the Wake Forest University School of Business MBA program. The department was pleased to host distinguished seminar speakers from the University of Birmingham; the Institut d'Investiacions Biomediques in Barcelona, Spain; George Washington University; and Washington University.

The NEUROSCIENCE program celebrated its 20th year anniversary and reconnected with our graduates to see how they were doing both personally and professionally. A sample of the comments received include "indebted to the faculty at Wake who prepared me for this career", "proud to say I graduated from the Neuroscience Program", "the training program is excellent", "time at WFU was extremely valuable for my development as a scientist and communicator" and "the program still holds a fond place in my heart". This past year, six (6) PhD students graduated and are moving onto postdoctoral or other positions at prestigious institutions. The fall 2010 class will be the largest ever with 10 incoming students (8 PhD, 1 MD/PhD and 1 MD resident-in-training). Two (2) students received the Research Society on Alcoholism Student Merit Award, the 2010 Sulkin Award; one (1) was awarded a NRSA fellowship; four (4) were recognized with Mary A Bell best poster awards; and one (1) received the Western NC Chapter of the Society for Neuroscience (WNCSN) award with her abstract being selected for a lay summary to the press. In addition four (4) students received travel awards for attending the American Society for Pharmacology and Experimental Therapeutics, the Society for Neuroscience, Joint South East Nerve Net and Georgia/South Carolina Neuroscience Consortium Conference, ISDP Conference and one (1) received a WFU Graduate Student Research Day award. The program was especially pleased to learn that its prestigious NIH Predoctoral training grant will be renewed for an additional five years.

PHYSICS faculty continued to attract major funding, receiving over \$2M in research grants this year. A new faculty joined the department in 2009, coming from a NIST laboratory. Faculty and students

published dozens of articles in prestigious journals, gave numerous invited presentations, and submitted patents for items such as a new solar cell. The faculty received further distinction with the receipt of a MacArthur Award (and a visit to the White House), a Ralph E. Powe Junior Faculty Achievement Award, a Hobbs Award for Faculty Entrepreneurship, and the Harbert Family Distinguished Chair for Excellence in Teaching and Scholarship. The faculty are taking on leadership roles in the development of the new Translational Science Center and in organizing and participating in several national and international conferences. PhD students were successful in obtaining predoctoral fellowships from the American Heart Association and the NSF, and the Best Student Talk Award at the Eastern Gravity Meeting, and the Melson Outstanding Doctoral Student Award.

PHYSIOLOGY AND PHARMACOLOGY PhD students received numerous travel awards to present their research at international scientific meetings. Two (2) students won "Best Abstract" awards at the Experimental Biology meeting in Anaheim, CA and one (1) student received the department's endowed Sundberg Outstanding Graduate Student Award. Physiology and Pharmacology students were also very active in a large number of outreach activities organized by the Brain Awareness Council and NIAAA/NIDA training programs. Six (6) students graduated from the PhD program, with five (5) moving onto postdoctoral positions.

The PSYCHOLOGY graduate program enjoyed its 46th year at WFU and one that reinforced its reputation as being among the best general MA programs in the country. The program sustained its high productivity with all 10 of the full-time students admitted in August 2008 receiving their degree in the spring or the summer of 2010. One student from the admitted class of 2007 will enter the Vanderbilt Ph.D. program next fall and eight (8) from the August 2008 class will enroll in doctoral programs next fall. Twelve (12) students with outstanding credentials were admitted to the program for the fall of 2010. Eighteen (18) current or former students co-authored 30 presentations at professional meetings, 12 current or previous graduate students were co-authors on articles published or in press, and nine (9) current students presented posters at the annual Graduate Student Research Day with two (2) winning best or runners-up prizes in the Social Sciences category. Graduate students were significant contributors to 36 articles or book chapters published by faculty and to extramural grants awarded during the past year with over \$5M in total funding. Faculty and students were active collaborators with research and education-related projects involving faculty in the Neuroscience, Philosophy, Psychiatry, and Physiology/Pharmacology at WFU, indicating the broad reach of their scholarly activities.

The graduate program in RELIGION continues to manifest signs of positive change. Thirteen (13) MA students were enrolled at the beginning of the academic year, with two (2) withdrawing on academic grounds and one (1) leaving for medical reasons. Five (5) students successfully defended their theses and participated in the May Commencement, with a 6th student expected to graduate in August 2010 and one (1) performing with distinction in the dual MA/JD program. Two (2) of the May 2010 graduates have been accepted into PhD programs in New Testament Studies and Criminology respectively. Nearly twice as many applications (30) were received as in previous years and five (5) accepted offers of admission, all of which were among our top candidates. The department hosted two (2) major conferences during the year in which graduate students played major roles: "The Rule of Law and the Rule of God: Their Differences" and the "Difference It Makes and African Americans and Indigenous Peoples: Similarities and Differences in Historical Experiences". Faculty were active participants in several campus events including Earth Day and "From Classroom to Controversy", "Humanities Initiative", and the "Albert Schweitzer" symposia as well as in publishing a book manuscript with Oxford University Press, serving on important editorial boards for peer-reviewed journals, and receiving fellowships or other accolades.

The interdisciplinary certificate program in STRUCTURAL AND COMPUTATIONAL BIOPHYSICS graduated its 1st PhD student from physics. Three (3) new students were admitted to the certificate program: one (1) PhD student from physics and two (2) MS students from mathematics who are, in turn, the 1st mathematics students to be admitted to the program. The SCB discussion group continued to be a forum for interdisciplinary exchange with a focus this year on the work of new faculty members.

B. <u>Highlights of joint degree programs</u>

The MD/PHD PROGRAM is proud to announce the graduation of four (4) students, all of whom have matched in excellent residency programs at the University of Michigan (Internal Medicine and Oncology), the University of Pennsylvania (Neurology), the University of California at San Francisco (Pediatrics) or remaining here at Wake Forest University (Internal Medicine). Another student was awarded a NRSA from the NIH and finished the PhD portion of his training. Many other students had great accomplishments including international press coverage of their research as well as multiple presentations at national and international meetings. This was the 1st year in which students completed three (3) months of internal medicine prior to joining Graduate School and then continued their clinical work by attending monthly outpatient clinics. This has proven a valuable strategy for the students to maintain their clinical skills while in the graduate program.

The MA IN COUNSELING /MDIV PROGRAM graduated its 1st two (2) students at the May commencement. They both found immediate positions in counseling settings with a spiritual focus -- Duke University and CareNet of North Carolina (Statesville), respectively. There are three (3) MA/MDiv students who will be 2nd year Counseling students in 2010-2011 and two (2) more dual degree students will join the incoming Counseling group in August 2010.

The dual MA IN RELIGION /JD PROGRAM remains a vital component of our graduate program and reflects an ongoing collaboration between the Department and the School of Law. We will graduate the 1st student in the dual program in May 2011. Inquiries remain strong, and we expect one (1) incoming student to enroll in the dual-degree program.

The PHD/MBA PROGRAM began in 2000 as the nation's 1st and has since graduated seven (7) students within the desired duration of a PhD program (5 yr). Three (3) students are currently in the program, having entered it upon completion of their discipline-related coursework. Of note this year, Dr. Carla Lema Tome received the WFU Schools of Business MBA Award for Academic Excellence during the Evening MBA Class of 2009 graduation celebration on September 11, 2009. This award is given to the student who has earned the highest overall grade point average in the class. Carla received her PhD from the Department of Neurobiology and Anatomy graduate program and received her MBA from the PhD/MBA joint program. Alumni of the PhD/MBA program are active in the pharmaceutical and biomedical device industries as well as in traditional academic careers. The PhD/MBA program fulfills an important role in training the next generation of biomedical innovators. Program growth is anticipated as PhD students increasingly seek careers in industry, government and technology management.

C. Highlights of Graduate Student and Postdoctoral Activities

The GRADUATE SCHOOL ASSOCIATION (GSA) includes students from all programs with representatives elected from each department or interdisciplinary unit. Summer Hanna (Chemistry) and Kathleen Egan

(Clinical, Population Translational Sciences) served as co-chairs this year, assisted by Leigh Ann Graham (Chemistry) as Secretary and Eugenia Dolson (Neuroscience) as Treasurer. The GSA continued its tradition of active community service by sponsoring a graduate student team for the Triad Area Susan G. Komen Race for the Cure that raised over \$1100; hosting Happy Hours; volunteering for the Winston-Salem Jaycee's annual "Christmas Cheer" event in which gifts are selected for and with local underprivileged children; hosting the annual "Spring Fling" which includes students from the Graduate, Law, Physician's Assistant, Business, and Medical Schools; and participating as regular members of the Graduate Council and other University committees. Especially valuable has been the GSA's input in planning current and future graduate student professional development activities.

The BLACK GRADUATE STUDENT ASSOCIATION (BGSA) assisted with new student orientations on both main campuses and played key roles in recruitment-related efforts. President Dana Yancey (Cancer Biology) and Vice-President Jasmin Feimster (Molecular Medicine) attended several recruiting events throughout North Carolina to help promote recruitment at minority-serving universities. BGSA members also implemented a successful tutoring and mentoring initiative, visited several cultural attractions locally, and hosted numerous social events to promote unity between the professional schools and the Winston-Salem community.

The BRAIN AWARENESS COUNCIL (BCA) involved 69 graduate, medical and undergraduate students; postdoctoral fellows; faculty and staff at WFU. An 11-person leadership team organized monthly visits to a total of eight (8) K-12 schools that involved 23 grades or courses, an average of 13 BCA members per visit, and reached 1,183 students. The "Effects of Drugs on the Brain" and "Careers in Science" curriculum for these visits was redesigned to make it even more effective. A "Giving Tree" was created for collecting donated materials suitable for classroom activities. Eight (8) separate events were held at various locales including SciWorks and the Children's Museum during Brain Awareness Week in March that collectively reached over 800 persons. Three (3) new events were begun; namely, "Neuroscience and a Movie" in which a movie portraying a neurological disorder was shown every other month followed by a question and answer session, "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 area middle- and high-schools 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 CHINESE GRADUATE STUDENT ASSOCIATION (CGSA) undertook two traditional celebrations (The Chinese New Year, and Moon Festival), short trips, special activities such as the Yushu earthquake fundraiser, and weekly sport club events. The Moon Festival was attended by hundreds of students and Winston-Salem residents who enjoyed the traditional food, puzzle games and performances. The Moon festival began the 2010 Chinese Year of the Ox, and featured Lion dance and Kongfu demonstration. A

total of \$1089 was raised to support the rescue workers and victims in Yushu from the sale of t-shirts and other activities. A website (www.cssabbs.inwake.com) was created for CGSA to

improve communication and a new fund created to encourage persons to pick up newcomers at the airport. For increasing WFU's recognition in China, we invited a Chinese calligrapher to translate WFU into Chinese, which is shown above. We are grateful for the support received during the past year from the Chinese Embassy in Washington DC and the WFU administration. We hope that CGSA will be able to help more incoming Chinese students and scholars, and to enhance interaction between the Chinese community and other organizations at WFU and in Winston-Salem next year.

The POSTDOCTORAL ASSOCIATION (PDA) is open to all postdocs on the Bowman Gray as well as Reynolda campuses of WFU. Starting the spring of 2010, the PDA was led by executive board members Mesia Moore Steed and Megan Rudock (co-chairs), Nichole Allred (secretary), and Sarah Lindsey (picnic committee chair). Their mission was to be advocates for postdoctoral concerns and to create a sense of community and support for the postdoctorate at WFU. The board held two regular meetings (March and June) with over 20 attendees. The PDA provided social events, including the annual postdoc picnic held Sunday, May 23, 2010. Members also participated in several conferences and workshops held in conjunction with the Office of Postdoctoral Affairs (OPA). In the upcoming year, the PDA plans to strengthen the current support network, implement postdoc-suggested ideas to enhance the training experience, and collaborate with the OPA to provide workshops to develop great leaders. The PDA is greatly appreciative of the support the OPA provides.

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

Overall strengths:

- Excellent masters and doctoral programs that tap the depth of faculty expertise, generate new knowledge, and advance student and faculty careers.
- Faculty commitment to graduate education as illustrated by the participation of 34 faculty in the Masters and Doctoral Task Forces during the past year.
- Financial support for our graduate students, including the provision of tuition scholarships to a high proportion, a stipend raise for all PhD students in the past and coming year, and a stipend raise for all masters students in the coming year.
- Substantive preparation for becoming the next generation of teachers-scholars as demonstrated by graduate-student contributions to undergraduate courses and labs; and their integral roles in research as demonstrated by the receipt of over 54 best-presentation awards, publication of over 250 articles, and assistance to grants totaling over \$16M.
- Support for the development of the whole person as illustrated by our Responsible Conduct of Research (RCR) and teaching assistant (TA)-training programs as well as by the large amount of community service provided by the Counseling, Education, Health and Exercise Science, Neuroscience and other programs.
- High-level demand as illustrated by our high applicant to acceptance ratio.
- Career success as indicated by our students' acceptance into doctoral or postdoctoral programs and receipt of industry, government, or other kinds of jobs following graduation.

Overall weaknesses:

- Below desired levels of racial or ethnic diversity in our student body, especially at Reynolda.
- Lack of institutional recognition of the importance of the Graduate School, which limits our visibility.
- Limited areas in which PhD training is available, which reduces the opportunities for graduate programs to generate knowledge and advance WFU's distinction.
- Insufficient linkage of instructional technologies between campuses.
- Limited fundraising assistance from the Advancement/Development Offices.
- Lack of comprehensive mechanisms for tracking our student's career success.

4. SCHOOL'S GOALS AND OBJECTIVES

A. Key Goals for 2009-2010 as Laid Out in the Strategic Plan (Table 1).

The Graduate School's goals and objectives closely parallel those of WFU and hence help to realize the University's goal of becoming the nation's leading collegiate university.

Table 1. Key Goals for 2009-2010									
WFU Goals	Graduate School Goals	Graduate School Objectives							
Build academic programs of nationally recognized excellence.	1. Promote a culture of collaboration.	Increase our visibility, clarity of purpose, and financial support.							
Open doors for educational opportunity. Develop the whole person.	2. Build exceptional leaders.	Improve student quality and diversity; expand graduate student and postdoctoral professional development.							
Reinforce the connections between the liberal arts and the professions.	3. Strengthen connections within WFU and to communities beyond campus.	Develop interdisciplinary programs and promote outreach activities.							

In keeping with the rich history of graduate education at WFU, our **1**st **goal is to promote a culture of collaboration** among talented faculty who are passionate about graduate education. Our means for doing so are to increase the visibility, clarity of purpose, and financial support for our programs. A central feature of last year's efforts were the Masters and Doctoral Task Forces, which worked throughout the year and whose recommendations regarding program organization and financial structure were endorsed by the Graduate Faculty in April. Our **2**nd **goal of building exceptional leaders** was addressed by efforts to improve student quality and diversity. We did so by increasing the number of minority applicants, adding professional development programs for doctoral students, and initiating planned pipeline programs with minority-serving institutions. Our **3**rd **goal of strengthening connections within WFU and beyond campus** was advanced by developing interdisciplinary programs at both the masters and doctoral levels, and by promoting a range of outreach efforts to build community.

B. Actions Initiated Over the Past Year to Achieve These Goals and Outcomes Achieved (Table 2).

Regarding our **1**st **goal of promoting a culture of collaboration** among talented faculty who are passionate about graduate education, we increased our <u>visibility</u> by redesigning our *website* since, as we have learned from our surveys, it is the primary means by which persons learn about us. We engaged a web designer to bring it in line with the new WFU look, rebuild it in entirety to streamline operation and increase functionality, and added social networking tools to augment viewership. A tracking feature was installed which will permit us to better understand how prospective applicants find us and for use in optimizing the site. We have expanded recognition of our programs as illustrated by a 31% increase in the number of applications over the past five (5) years, with 19% of this rise taking place in the past year. There has also been a 22% increase in the number matriculants, demonstrating greater selectivity. The *Masters and Doctoral Task Forces* formed last spring permitted the 34 faculty participants to become more familiar with the workings of other programs, and thereby aided in forming a more coherent graduate-faculty community. We increased *faculty participation in masters programs* with the development and implementation of the new Bioethics MA and certificate programs in the Fall 2009, and the new MA and MFA in Documentary Film programs slated to begin in the Fall 2010.

Grad School Goals	Objectives	2009-10 Actions and Outcomes
1. Promote a culture of collaboration.		a. Added new web functions, improved website design and operations.b. Increased numbers of applicants and matriculants.
	Increase	c. Broadened faculty familiarity with graduate programs through
		participation in the Doctoral and Masters Task Forces;
	visibility.	d. Enlarged Graduate Student/Postdoc Research Day.
		e. Created a Graduate School Newsletter.
		f. Sponsored multiple cross-campus career workshops, social events.
		g. Took on leadership roles within the NC Council of Graduate Schools.
		h. Discussed Masters and Doctoral Task Force recommendations with
	Clarify	campus communities and began implementing improvements.
	purpose.	i. Upgraded our online application and budget-monitoring systems.
	purpose.	j. Conducted a program retention and degree completion study.
		k. Helped plan an improved health insurance program for Reynolda
		masters and doctoral students.
	Increase	I. Increased doctoral-student stipends at both campuses.
	financial	m. Engaged in planning efforts to coordinate the number of TA and GA
	support.	positions to meet the College's teaching needs.
		n. Increased revenue from tuition and philanthropic sources for
		supporting graduate students and programs.
2. Build exceptional		a. Increased the number of minority applicants and offers of admission.
leaders.		b. Tracked minority applicants, promoted expansion of Hearst awards.
		c. Initiated visits with key minority-serving institutions for building
	Improve student	partnership programs.
		d. Increased student numbers, faculty participation, and minority
	quality and	representation in summer research programs.
	diversity.	e. Created a Facebook page to maintain contact with interested students.
		f. Developed a Spanish-language guide to encourage applications from
		Latin American students.
		g. Attended SACNAS to expand connections with Hispanic-serving institutions.
	Promote	h. Implemented a RCR program for Reynolda doctoral students and
	graduate	oversaw revision of RCR curriculum at Bowman Gray.
	student	i. Initiated a TA training program.
	professional development.	j. Expanded internship opportunities, oversaw student awards.k. Helped the Graduate Student Association and other student groups.
3. Strengthen		a. Developed new masters and certificate programs; added "tracks" to
connections within	Develop now	simplify the structure of interdisciplinary PhD programs.
WFU and to communities beyond	Develop new programs	 b. Promoted interdisciplinary programs and community-outreach efforts. c. Helped celebrate student success with support for attending national
campus.		meetings and recognition of student awards or publications.
		d. Created community via a website, email hot-links, social and other
		events.
	Develop the	e. Created a "Best Practices" document for encapsulating national
	Office of	standards for excellence in postdoctoral training, an individualized
	Postdoctoral	development plan, and a Handbook; formed a Benefits Task Force.
	Affairs.	f. Offered Postdoctoral Scholar Development Awards and workshops to
		enhance career success inside and outside of academia.
		g. Encouraged international postdoc recruitment.

The Doctoral Task Force accomplished what has proved elusive for the past 18 yrs; namely, simplifying the structure of our biomedical and interdisciplinary doctoral programs with the advent of "tracks" so as to increase their attractiveness to potential recruits and augment *faculty participation in doctoral programs*. Synergies are expected to lead to new training grants, research grants and publications -- all of which will add to faculty distinction and program recognition nationally. The *largest-ever Graduate Student/Postdoc Research Day* was held with 132 posters, 14% more than the record-breaking 116 of last year, and several hundred persons in attendance including Winston-Salem Mayor Alan Joines. An inaugural edition of the Graduate School *Newsletter* was created and posted at our website. Means for its distribution to the wider campus community and communities beyond campus are under discussion with the Advancement and Development Offices at WFU / WFUHS. Multiple cross-campus career workshops and social events also helped augment visibility. Dean Moore became the President-elect of the NC Council of Graduate Schools and took on active functions in this and next year's activities.

A key means for clarifying our purpose was formation of the two task forces referenced above. Their recommendations concerning the financial structure of our Masters Programs and the organizational structure of our Doctoral Programs were discussed in Town Hall and other meetings, and overwhelmingly adopted at the Spring Graduate Faculty meeting. Improvements in our operations were introduced; namely, upgrades in our online application system to permit payment of application fees by credit card and email submission of letters of recommendations. We implemented a *budget-tracking* system so that expenditures and cash-swaps between campuses could be more easily managed and instituted a "hotlinks" system for disseminating information to graduate program directors, faculty and students on a regular basis as a single email with links to detailed sources. Together with Z Smith Reynolds and Coy Carpenter Library staff, a system was planned for beginning fully electronic submission of theses and dissertations to the national archival service ProQuest (formerly U Mi microfilms) effective July 1, 2010. We conducted the 1st-ever *program retention and degree completion study* for all full-time students entering our programs since 2000. For masters students, 91% of Reynolda students completed their degrees in 2.2 yrs (with 2% still enrolled and 7% having withdrawn) and 67% of Bowman Gray students did so in 2.1 yrs (with 20% still enrolled and 13% having withdrawn). National data are not available for masters programs but these figures are certainly well above average. Allowing six years for PhD completion, our PhD students completed their programs at a 2-3 times higher rate and ~2 yrs sooner than is the case nationally; 42% of students in Reynolda programs received their degrees within 5.2 yrs and 76% of Bowman Gray students did so in 5.1 yrs.

For <u>increasing financial support</u>, we continued to provide \$1800 annually in health-insurance benefits for each Reynolda and Bowman Gray PhD student without comparable coverage. Following recommendations we made a year ago, we participated in a process for planning an improved *health insurance program for all Reynolda graduate and undergraduate students* in the coming year, which substantially lowers the premium and increases benefits. We *raised stipends for all PhD students* – a remarkable achievement in this economically challenging time. Building on our study done one year ago that demonstrated the value of graduate student's teaching, research and service contributions to the quality of the undergraduate as well as their own and the faculty's experiences, we initiated discussion with the College to identify the optimal number of TA and other forms of graduate assistant (GA) positions. As a result of the recommendations received, we raised the numbers of TA and GA positions for next year. Enacting changes in our tuition-scholarship policies *more than doubled tuition revenue* compared to 2006-07 levels. Tuition paid on faculty grants for research assistantships also increased 48%, reflecting the faculty's success in obtaining extramural awards. Changes in fundraising practices enabled us to achieve a 38% increase in alumni giving to our Reynolda campus programs. Thus we are succeeding in our goal of broadening the sources of revenue for our programs and in using this revenue for increasing support for our graduate students and programs.

To advance **our 2nd goal of building exceptional leaders**, we undertook several means for improving student quality and diversity. Attendance at major recruiting fairs, follow-up with key contacts and interested students, and the advent of new programs contributed to doubling the number of US racial and ethnic minority applicants from 88 for Fall 2006 to 178 anticipated for Fall 2010. This rise occurred at both campuses, but was more marked at Reynolda than Bowman Gray (2.5-fold vs. 1.6-fold respectively), and reflected not only a greater number of applications but also a rise in the percent minorities (10.8% for Fall 2006 to 15.2% anticipated for Fall 2010). The numbers of minorities made offers of admission rose 1.5-fold at Reynolda and 1.1-fold at Bowman Gray, with the change at Reynolda being comparatively recent. We attribute this success to targeting major recruiting venues, expanding minority participation in summer research programs, changes in our policy affecting the use of Hearst awards, and greater institutional attention to diversity overall. However, the percent of minority matriculants has not risen at either campus (12.6% for Fall 2006 vs. 10.6% anticipated for Fall 2010). We are uncertain of the reasons for this but think our comparatively low stipends and lack of explicit student-support programs are likely factors. We undertook several initiatives to enhance our recruiting efforts, including a tracking system so that the status of minority applicants could be more closely monitored. We promoted the use of Hearst awards for Reynolda students and received nearly threetimes as many nominations compared to last year (17 vs. 6), which were from a broader range of undergraduate institutions and to more WFU programs than in previous years. We called for recruiting plans and supported two (2) initiatives involving Spelman College in Atlanta. These consisted of visits by three (3) Spelman Math faculty to WFU where Math Professor Ellen Kirkman, her colleagues and others hosted their visits, and a visit to Spelman by Computer Science Professor David John. Both initiatives were very successful and have led to subsequent discussions involving Assistant Provost Barbee Oakes for creating partnership agreements with Spelman and perhaps other Atlanta colleges, and an invitation to address a group of Spelman students at a July 2010 event in Durham NC. An agreement was signed with Tennessee State University to exchange campus visits. Dean Moore and Assistant Vice-President for Corporate and Foundation Relations Linda Luvaas visited the Hearst Foundation to discuss a proposal to expand our endowment and thereby the number of awards. The Graduate School funded the summer research opportunities program (SROP) and co-hosted social events, journal clubs and other activities with the extramurally funded Excellence in Cardiovascular Sciences (EICS), the WFU Undergraduate Research and Creative Activities (URECA), and summer programs sponsored by the WFU Translational Science and Regenerative Medicine Institutes. A total of 33 students, including 74% percent minorities or economically disadvantaged students, were enrolled in the summer 2010 programs, including one (1) in a Reynolda chemistry lab. These are slightly lower numbers than last year in which 37 students (including three [3] at Reynolda), were involved, but the percent of minorities was similarly high (74%) and 1.4-fold greater than five (5) years ago. A Facebook page was added to our website for maintaining contact with prospective students. Together with Paúl Pauca in Computer Science and his colleagues, we created a Spanish-language guide for how to apply to graduate school for students from Latin American countries, many of which lack a tradition of graduate study outside of professional programs such as engineering or medicine. Dean Moore gave a talk to an all-Latin American medical student audience to familiarize such students with opportunities for graduate study. Finally, as part of our rotation for attending major minority-serving recruiting fairs, Associate Dean McPhail and a graduate student from Microbiology & Immunology attended the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) meeting in Dallas, TX.

To promote graduate student professional development, planning efforts culminated in launching a Responsible Conduct of Research (RCR) program for Reynolda doctoral students. A total of 24, 1st year students took the new 1-cr hr RCR course (GRD 707) and 71 continuing students attended the 2-hr session co-sponsored with the Office of Compliance. The Graduate School has long been a leader in RCR training, having received NSF funding to develop a series of problem-based learning modules, but such training was formerly restricted to Bowman Gray campus students. Programs on both campuses now meet the new NIH, NSF and other federal agency requirements for intensive training in research ethics and related topics. We revised the Bowman Gray curriculum to facilitate comparability across campus and to reduce the number of required hours; GRD 715 and 716 were dropped and GRD 700 integrated into the streamlined yet comprehensive GRD 714. We also worked with the Scientific Integrity and Research Ethics (SIRE) committee, members of the Bioethics program and the Office of Research, to address the RCR training needs for the broader Bowman Gray constituency. Similarly, we worked with the Office of Research and Sponsored Programs to ensure that related training was available for Reynolda graduate students and faculty. A 2nd major initiative was piloting a *one-day TA orientation* workshop for the 55 matriculating TAs at Reynolda. This effort was coordinated with additional training offered by departments for discipline-based activities, the Teaching and Learning Center who provided seven (7) educational seminars on more detailed topics, and the Department of Education where two (2) established teachers in their masters program provided classroom visits and guidance for a subset of TAs. Having now been piloted, the departments have endorsed offering this TA-training program to all TAs matriculating in the Fall 2010 and encapsulating it as a 1-hr academic credit course (GRD 711). Another course was introduced last year (GRD 720) for continuing students interested in gaining familiarity with college-level teaching, which was taken by seven (7) Bowman Gray students. In addition, workshops were offered in conjunction with the Z Smith Reynolds and Coy Carpenter libraries on electronic submission of theses and dissertations, thesis preparation in general, and with the Office of Career Development. Additional internships at Targacept and the Office of Technology Office Management (OTAM) were introduced, bringing the total to five (5) offered through the Graduate School. Oversight was provided for preparing applications for student awards (e.g., Richter, summer research funds, Gordon Melson Outstanding Student, ORAU), with a record number making such applications. Help was also provided to the Graduate Student Association and other student groups for social and outreach programs, and for resolving such longstanding issues as access to campus parking lots over the Holidays.

Our 3rd goal of strengthening connections within WFU and to communities beyond campus was advanced by new masters programs in Bioethics and Documentary Film, and plans for implementing the doctoral "tracks". Collectively these efforts and those planned for the coming year are expected to place us at the forefront of graduate education. Connections between schools or colleges are being advanced with new joint Bioethics programs with the Divinity, Law and Medical Schools; the new joint Religion MA/JD program; and our continued sponsorship of the interdisciplinary Structural and Computational Biophysics discussion-group sessions. New interdisciplinary training grants in Molecular Communication and in Structural Biology were submitted this past year. Planning efforts for new initiatives in translation studies and computational biophysics were discussed and the simplified interdisciplinary "track" structure of the PhD programs is expected to lead to other program innovations. We helped to celebrate student success and to support our programs by making Alumni Student Travel Awards, publicizing the large number of "Best Poster" or other kinds of student awards, and highlighting the publications co-authored or grants received. Acquisition of the Academic Analytics database and discussions with its developers will help us document our success, and use such materials in marketing our programs nationally. The high proportion of our students who complete their degrees within reasonable time frames and their large number of presentations at professional meetings, student

awards, and publications demonstrate our program's high productivity. By way of *community outreach*, efforts were promoted to link the various science-education activities involving K-12 schools and to help the Brain Awareness Council expand its number and kinds of school visits.

The <u>Office of Postdoctoral Affairs</u> (OPA) has now completed its 2nd year of operations, and continues to serve as an important means for strengthening connections within and between campuses, as well as to broader communities. Last year's activities focused on creating *an up-to-date web portal* for maintaining contact with and disseminating information to all postdoctoral fellows via a biweekly "Hotlinks" email. A *"Best Practices" document* was created for encapsulating national standards for excellence in postdoctoral training and a template provided for individualized development plans for scholars and mentors to optimize postdoctoral success. The *Handbook* created last year was updated with new sections on visa issues, professional development, and teaching opportunities. A *Benefits Task Force* was formed to clarify how different appointments affect health-care and other benefits, as well as to recommend improvements for such packages. A new event was held, Postdoctoral Appreciation Day, and a new program launched for providing *Postdoctoral Scholar Development Awards* to which over 20 applications were made and eight (8) awards funded for Bowman Gray or Reynolda-based scholars. Finally, we helped promote new NC biotech initiatives such as the Triad Biotechnology Alliance that brings postdocs together with leaders of biotechnology firms.

C. Key Goals for 2010-11 and Plans for the Coming Year Aimed at Achieving These Goals (Table 3).

Toward our **1**st **goal of promoting a culture of collaboration** among talented faculty who are passionate about graduate education, we will continue to <u>increase the visibility</u> of our graduate programs via *improvements in our website* aimed at generating student interest in our masters and doctoral programs. We will use recently-installed functions to maintain its navigability and work with our web designer to incorporate new "track" pages, update program pages to reflect new curricular structures, and use RSS feeds to ensure regular updates of our news and events page. *Opportunities for faculty and student participation* will expand with start of new masters programs (e.g., Documentary Film) and planning efforts for others, and with the implementation of the new "track" structure for the interdisciplinary doctoral programs. Our printed materials have not been updated for several years; we will *create new materials and a marketing plan* to ensure that such materials reach their intended audience. Dean Moore has become the *President of the NC Council of Graduate Schools*. We will host the annual fall meeting, which is expected to involve over 50 senior administrative personnel and staff from throughout North Carolina as well as from the national Council of Graduate Schools offices. This will give us the chance to showcase our programs and for staff from all institutions to exchange best practices.

<u>Clarifying our purpose</u> also advances our goal of promoting collaboration within WFU. With the completion of the prior associate deans' terms or moves to other positions, *two new Associate Deans have been appointed – Dwayne Godwin and Bradley Jones –* and their responsibilities adjusted to reflect both cross- and within-campus functions. Associate Dean Godwin will be responsible for graduate student and postdoctoral professional development on both campuses, as well as aid Dean Moore in Bowman Gray-specific matters. Associate Dean Jones will be in charge of recruiting and program publicity, and will aid Dean Moore in Reynolda Campus-specific areas. Their fresh ideas and input from campus communities will be used to *optimize the administrative support provided by the Graduate School for graduate students and programs*. We have formed Implementation Working Groups

Table 3. Key Gradua	ate School Goal	s for 2010-2011 and Plans for Realizing Them.				
Grad School Goals	Objectives	2010-2011 Plans				
1. Promote a culture		a. Continue to improve clarity and navigability of website.				
of collaboration.	Increase	b. Expand faculty and student participation in graduate programs.				
	visibility.	c. Update printed materials and create a marketing plan.				
		d. Chair the NC Council of Graduate Schools, host the annual meeting.				
	Clarifi	e. Appoint new Associate Deans, adjust functions.				
	Clarify	f. Optimize administrative support for graduate students and programs.				
	purpose.	g. Continue to improve operating efficiency within the Graduate School.				
	Increace	h. Create a staged plan for maintaining competitive stipend levels.				
	Increase financial	i. Increase revenue from tuition, philanthropic and grant sources.				
	support.	j. Coordinate the number of TA and GA positions with the College and adjust				
	support.	policies to ensure resources are being used wisely.				
2. Build exceptional		a. Develop partnership programs with minority-serving institutions.				
leaders.	Improve	b. Improve online application systems for students and faculty.				
	student	c. Support summer programs that help create an inclusive student body.				
	quality and	d. Attend select recruiting fairs, maintain student and key-contact databases.				
	diversity.	e. Plan support services for 1 st generation "striver" students.				
		f. Continue to track time-to-degree completion and program retention.				
	Promote student	g. Implement the GRD 707-708 Reynolda and 701, 713 & 714 Bowman Gray RCR curriculum.				
	professional	h. Expand the TA-training program.				
	development.	i. Advise the Graduate Student Association and other student groups.				
3. Strengthen	Develop joint	a. Advance interdisciplinary, joint degree and certificate programs.				
connections within	programs	b. Develop training opportunities that bridge campuses, schools or colleges.				
WFU and to		c. Build resources for the OPA to serve as a central resource for postdoctoral				
communities	Develop the	issues on both campuses.				
beyond campus.	Office of	d. Broaden career development programs for postdocs.				
	Postdoctoral	e. Build community using social media and other novel approaches.				
	Affairs (OPA).	f. Expand Reynolda Campus participation with new initiatives such as				
		Postdoc Teacher-Scholars, new grants, and coordinated coursework.				

composed of faculty from both campuses for identifying how recruiting, curricular, and program administrative functions can be best served within the new interdisciplinary PhD "track" structure. Our goals are to make these functions more student-centered and streamlined, especially with respect to recruitment and educational activities, while being attentive to the need to ensure faculty and departmental oversight. Also being pursued are opportunities to cross list or otherwise link courses across departments and campuses so as to broaden course range and increase student access, and to centralize administrative functions among programs within a track. Recommendations from the Masters Task Force have prompted regular meetings for Reynolda Campus Graduate Program Directors. Attendance by Dean Moore or the Associate Deans will be provided as requested. Other means by which communication with graduate program directors, faculty and students will be maintained are regular meetings called by the Graduate School for addressing specific topics, updates to our website, and regular "hotlink" emails using Constant Contact. We continue to optimize efficiency by introducing tools such as Survey Monkey for the conduct of student surveys so as to reduce staff processing and hasten feedback to programs, and Academic Analytics to help with graduate-program planning. A Fall 2010 Retreat is planned with an external consultant to aid in coordinating Graduate School functions across and within campuses.

With respect to our efforts to increase financial support, we have been able to raise stipends for all doctoral students for the 2nd year in a row and for all Reynolda Campus masters students in the coming year. We are very proud of this as stipends have not been increased for masters students in several years and we face a pressing need is make our masters and doctoral student stipends competitive with those elsewhere. We will use the recommendations of the Masters and Doctoral Task Forces and other benchmarking data to define and create a staged plan for reaching and maintaining competitive stipends by linking them to tuition-, grant- and philanthropic-derived revenue and other measures of program success. We will continue to work with graduate programs to ensure a stable stream of student- and faculty-grant derived tuition revenue, training grant and other kinds of fellowship support; with campus administrations to ensure funds are being used wisely; and with philanthropic sources to broaden the range of sources being tapped. The numbers of *TA and GA positions will be coordinated with the College* to ensure that key teaching needs are being met.

Key to our 2nd goal of building exceptional leaders is attracting high-quality, diverse students and assuring optimal professional development. As the proportion of racial and ethnic minorities on the Reynolda campus lags behind the national average, we will develop bold new recruiting strategies for improving student quality and diversity. A central means for doing so will be the creation of partnership programs with faculty and administrators at top quality HBCU and other minority-serving institutions such as that being developed with Spelman College. Broad collaboration – involving College faculty and students, the Office of Multicultural Affairs, the Maya Angelou Center for Health Equity, the Black Graduate Student Association, and the Assistant Provost for Diversity and Inclusion - and visits to and from Spelman so as to optimize institutional "fit" has been integral to the success achieved to date. We will continue to focus on our small size and excellent programs, and feature masters as well as doctoral programs since masters programs may be the perfect step for new graduates as they decide their career path. The primary goal of these visits will be to develop partnerships in trust. Refreshing new formats designed to leave a lasting impressions will be used such as the "Taste of Wake" one used recently in which small groups of prospective students rotated among tables and chatted for 5-8 minutes in a "speed-dating" format. Also under consideration are a fall masters-focused recruiting weekend and early campus visits for especially-promising applicants. Our new doctoral program "tracks" will also help attract students not yet sure of their specific area of interest. With upgrades in the Reynolda Banner system and continued assistance from Peoplesoft programmers, we will work to improve the online application system for students with electronic submission of letters of recommendation and for faculty with electronic access to application materials. Such services are needed for making favorable impressions with prospective students, optimizing the use of faculty and staff time, and hastening the speed with which decisions regarding high-quality applicants can be made. A review of the "yield" from SROP and other summer programs to our graduate programs is underway; we will use this information to decide the most cost-effective ways in which summer programs can help create an inclusive student body. We will pursue new grant opportunities such as the DOD proposal being submitted together with Winston-Salem University for bringing undergraduates to WFU for summer research experiences. We will continue to attend select recruiting events -- NC OPT-Ed Alliance Day, ABRCMS and SACNAS (alternating between these latter two national meetings) -- and maintain student and key contact databases so as to be able to decide the most productive fairs. Our efforts to expand program publicity and marketing will also be instrumental for promoting the strengths of our masters and doctoral programs as places where discoveries are made and students are prepared for a range of career opportunities inside and outside of academia. As we increase diversity, support services will be expanded. Years ago, Wake Forest College attracted many 1st generation scholars, historically Baptist young men from rural North Carolina. Now the Graduate School hopes to continue this tradition of reaching out to 1st generation, socio-economically disadvantaged students, especially those judged to be "strivers" (persons with a higher than expected standardized test scores despite their personal challenges). Many state-supported institutions reach out specifically to this group; for example, more than 2000 UNC graduates have been part of the *Carolina Covenant* over the past five years. The keys to success for "strivers" include financial support for ensuring that they graduate debt-free and support networks to assist them while in school. We will seek to identify the kinds of financial support needed at the graduate level -- including work-study opportunities, tuition scholarships, special fellowships, and TA- or GA-ships for which they receive an adequate stipend. We will also identify the other kinds of support needed such as faculty and peer mentors during the 1st year, automatic study abroad opportunities (similar to Richter Awards), writing and speaking workshops, and social activities. During the coming year, we will examine practices at other institutions, targeting those likely to work best at Wake Forest, and begin a program for recruiting 1st generation "strivers". Finally, we will *track time-to-degree completion and percent degree completion* for all masters and doctoral programs whereas historically we did so only for time to doctoral degree completion. Over the coming years, we will invest in those recruiting efforts that produce the highest yield of under-represented minorities and in programs that most successfully graduate high-quality students in a timely fashion.

We will promote graduate student professional development with the continuation of the RCR curriculum piloted last year at Reynolda and consolidated for Bowman Gray. The 1-cr course (Grd 707) begun last fall will continue to be offered to all doctoral students but expanded to include all masters students working on federally-funded projects. A 2nd course (GRD 708) will be introduced in the Spring 2011 for all Reynolda doctoral students using the problem-based learning format developed for RCR training at Bowman Gray. The streamlined GRD 701, 713 & 714 RCR curriculum will be initiated at Bowman Gray. Further integration of the RCR curriculum may be possible but will depend on crosscampus curricular and programmatic developments within the interdisciplinary tracks. The TA training program piloted last year will be expanded as all departments have now chosen to participate in the two, half-day orientation sessions, increasing student numbers from 55 to 75-80. The range and kinds of workshops being offered TAs will be expanded with the arrival of the new Director of the Teaching and Learning Center (TLC), inclusion of persons from additional offices of the University providing studentsupport services, and participation of successful TAs. Another new feature is the expansion of our peermentoring program, moving from an optional status last year to being required for all incoming Reynolda TAs, and providing 1-cr hr of academic credit as GRD 711. This peer-mentoring program will involve five (5) established teachers who are masters students in the Education Department. They will serve as Grad School TAs, with stipends being provided by the Graduate School. Each will advise 10-11 TAs serving in departmental programs regarding instructional methods or related matters. Finally, we will continue to work with the Graduate Student Association on new initiatives or as other needs arise.

We will pursue our **3**rd goal of strengthening connections within WFU and to communities beyond campus with the introduction of <u>new masters programs</u> and plans for <u>implementing the doctoral</u> <u>"tracks"</u>. The strengths of our programs are demonstrated by the high proportion of our students who complete their degrees within reasonable time frames and our student's as well as our faculty's large number of presentations at professional meetings, student awards, and publications. Given this track record and planning efforts underway, *new masters programs* and changes in existing programs are anticipated. *New doctoral programs* or revisions of existing ones are also expected as outgrowths of implementing the new doctoral "tracks". Priority will be placed on *cross-campus initiatives* likely to lead to training grant or provide other kinds of student or program support.

With now the 2nd year of operations completed, the <u>Office of Postdoctoral Affairs (OPA)</u> is set to continue to *build resources* to enable it to serve as a central source of information on both campuses for

postdoctoral issues and to develop a sustainable model for its operations. The Postdoctoral Association (PDA) has elected new leadership. The half-time staff hired last year moved to another position and a new person began full-time (30 hr/wk) effective June 1; it is expected that this will greatly improve our operations and facilitate coordination of staff services with Graduate School operations. The OPA will explore whether all appointments should be made through the OPA to ensure uniformity of hiring practices, classification and tracking as part of an effort to establish a training grant repository. Discussion is underway with the campus administrations about ways to improve health-insurance benefits. The scope of the Postdoctoral Scholar Handbook is being expanded and hard copies made available for use by administration, program directors and department chairs. A brochure is planned to disseminate information about the services of the OPA to faculty, staff and others for helping recruit and retain successful postdoctoral fellows at WFU. We are broadening career-development programs by making our workshops monthly and beginning a "lunch and learn" series in cooperation with numerous Wake Forest service and scholarly groups, including the WFU Writing Center, Counseling Center, Career Services Office, Professional Development Center (PDC), and the Z Smith Reynolds and Coy C Carpenter Libraries. A significant means for *developing a sense of community* has been the use of social media, including Facebook and LinkedIn pages, and the advent of our biweekly "Hotlinks" email for information about upcoming events. A major emphasis in the coming year will be to expand Reynolda Campus participation; helpful in this regard will be the Postdoc Teacher-Scholar and other novel programs. We are also working with faculty in several schools or colleges to encourage grants for improving postdoctoral support and developing programs for preparing postdocs for career paths in industry or government in addition to academia (e.g., Director Godwin's interaction with Len Preslar and Charles lacovou to increase postdoc access to MBA coursework).

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 support provided by Provost Jill Tiefenthaler and the Medical School Dean / President of Health Affairs Bill Applegate. This support has made it possible to fund the health-insurance benefits for PhD students, stipends, and the Office of Postdoctoral Affairs; as well as to provide the personnel and operating budgets for the Graduate School offices on both campuses.

The assistance of the Dean of the College, Jacque Fetrow, and the Reynolda as well as Bowman Gray Department Chairs is also gratefully acknowledged for the many forms of program support provided to our graduate programs. We thank Associate Dean Sally Shumaker from the Office of Research, Associate Provost Mark Welker from the Office of Research and Sponsored Programs, and the central administrations for supporting our subscription to *Academic Analytics*. Assistant Provost Barbee Oakes' help with formulating new recruiting initiatives as well as that provided by Office of Multicultural Affairs Director Alta Mauro and Kathy Townsend of the WFUBMC Development Office is also greatly appreciated.

Special thanks are extended to the Graduate Program Directors for their assistance with the many aspects of our operations, as well as to the many faculty for their service on student committees. Dr. Dan Johnson has provided extraordinary assistance by chairing our graduate student Professional Development Advisory Committee and offering a course, together with Dr. Allyn Howlett, on college teaching. Faculty helped in important ways via their participation in Graduate Council, the University Senate, as Faculty and Student Grievance Liaisons, and as members of the Honor Code and Grievance panels. Students serving as officers of the Graduate Student Association, other student groups, and as

members of the Honor Code Panel also enabled our programs to function at their intended, high level. We thank all these persons, listed by name in the Appendix, profoundly.

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 and 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 Jeff Lerner, 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.

Budgetary, human resources, and other kinds of assistance throughout the year from Shannon Badgett, Brandon Gilliland, Doug Lischke, Nellie Mitchell, Laurie Molloy, Michelle Phillips, Dixie Ross, and Charlene Watkins is much appreciated. We also appreciate the help given by K Carter Cook, Dina Marty, and Brian McGinn of the Legal Office for formulating policies regarding access to the Academic Analytics database, fees, honor code violations, taxation of student benefits, and other matters. The efforts of Controller Brandon Gilliland and Tax Director Anne Davenport from the Office of Financial and Accounting Services regarding student tax-related issues is also greatly appreciated.

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 Katie Martucci, BGSA representative Cheraton Love, CGSA representative Yuan Li, BAC representative Tamara Spence, Health and Effectiveness Council representative Bhavani Krishnan; 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 Summer Ramsey.

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 for our online application system. Help from the Information Service and Academic Computing units permitted us to create the Scholar Commons website for faculty and student access to Task Force, RCR, or other materials.

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.

A key request for the coming year remains closer cooperation between Information Services at Reynolda and Academic Computing at Bowman Gray so as to permit the student information obtained in Peoplesoft to be fed into Banner without staff having to enter the data manually. We also request programming assistance for getting information out of Banner so that we may discontinue manual entry of student information into an Access database as is presently required to have this information available for reporting functions. Assistance from the Advancement / Development and Alumni Offices on both campuses is requested so that the Graduate School may meet its fundraising potential.

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 wellbeing; 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 Rogan participated together with Associate Dean of the College Paul Ribisl and Director of the Office of Institutional Research Ross Griffith in a process to recommend improvements in the system for conducting internal and external departmental and other program review. Recommendations were made to suspend this process for another year while fine-tuning its format so as to make it more serviceable to both the units themselves and WFU at large.

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 the past year. 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/President of Health Affairs 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. MOUs for Biology, Education and Religion have been finalized this past year. These assessment activities have led to the dissolution of some programs, creation or renaming of others, and revision of administrative procedures. 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 exit survey conducted by the Graduate School at the time of each student's graduation for evaluating both the operations of the Graduate School and of the program, and periodic reviews such as the reports completed this year by the Masters and Doctoral Task Forces and the Graduate School's Program Retention and Degree Completion Study. Most programs also conduct additional surveys following graduation. Changes have been made as a result of these surveys such as the revision of the professional development courses on the Bowman Gray campus and extension of this training to Reynolda.

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 key contact and student prospect 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 -- such as Bioethics and Documentary Film -- that are attractive to a broad range of applicants.
- Sponsoring the Summer Research Opportunities Program and assisting with other summer programs involving a high proportion of minority students.
- Helping to initiate a NIH-funded PREP program that supports up to 12 minority students for one year of graduate study to strengthen their credentials for entering biomedical science related programs; and a NIH grant for creating a collaborative undergraduate neuroscience program with WSSU that is intended to increase minority admissions to graduate programs.
- Implementing a WFU-wide professional development program to enable RCR training for Reynolda PhD students as well as masters students working on federally-funded grants, the consolidation of Bowman Gray courses, and to expand the kinds of teaching and other 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 impressive increases in the numbers of minority applicants and the quality of those applicants as judged by the percent being made offers. We think sustained relationships with faculty at other institutions are likely key for successful matriculation of such students into our programs, and for further increases in the numbers and quality of applications received. We will enlarge our focus in the coming year in order to create and implement partnership agreements with minority-serving institutions as well as a program for recruiting 1st generation "striver" students to WFU. Some of the means to be employed include identifying shared interests and strengthening relationships with colleagues and former students at these institutions, and making requests for extramural funds (e.g., Math's CEGMenT proposal to the NSF and the WSSU Chemistry Department's DOD proposal). New fundraising initiatives are also under discussion for creating special fellowship for enhancing diversity. Finally, we will expand our support services to ensure that the needs of our increasingly diverse student clientele are being well served.

8. COMMENTS REGARDING TABULAR MATERIAL AND TABLES

Table 1 provides an alphabetical list of our 21 masters programs, 13 PhD programs, and eight (8) programs that are combined with ones housed in other WFU Schools or Colleges. There are 17 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. New MA

and MFA programs in Documentary Film and a combined MA Bioethics/MDiv will begin enrolling students in the Fall 2010.

Table 2 provides the total numbers of applications, acceptances and matriculants for admission in the Fall 2009, broken down by program and campus. Compared to Fall 2008, there were slightly fewer applications and numbers of students extended offers of admission, but 13% more students who matriculated; this indicates that a higher proportion of students accepted their offers of admission. The increase in number of matriculants was entirely due to changes at Reynolda. On average, 30% of applicants were accepted and of these 64% enrolled. These percentages were the same as in previous years, being somewhat higher for Reynolda than Bowman Gray programs.

Tables 3A-C show application, acceptance, and matriculation profiles for each program by gender, race or ethnicity, and international status. There are slightly more males than females who apply or enroll at Bowman Gray, whereas there are more females at Reynolda. A total of 23% of all applicants, 10% of acceptances and 14% of matriculating students at Bowman Gray are minorities (Black, Hispanic, Asian or American Indian). These corresponding figures at Reynolda are 13%, 8% and 9%. Compared with national averages, Blacks, Hispanics and American Indians but not Asians are under-represented. The percentages for under-represented groups are lower at Reynolda than Bowman Gray. The number of minorities applying and offered acceptance in Reynolda programs has grown compared to previous years, with such changes being particularly evident for students applying in 2009-2010 and expected to matriculate in Fall 2010 as discussed in Section 4B above. International students comprise 30% of applicants, 18% of students given offers of admission and 16% of matriculants, indicating strong interest in our programs abroad and the competitive nature of admission into our programs. A key need remains to increase minority applicants, especially for Reynolda programs.

Tables 4A-C provide test scores by program and by campus. GREs are approximately the same between the campuses for both verbal and quantitative scores. 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. As was the case last year, growth has occurred in Reynolda programs with 13% more students being enrolled. Bowman Gray numbers are essentially unchanged. The total number of students for both campuses has increased 7%.

When degree-seeking students are broken down by race or ethnicity (Table 6), US minorities and international students combined constitute 31% of all students at Bowman Gray and 25% of all students at Reynolda. At Bowman Gray, the percent of Blacks, Hispanics, Asians and Native Americans combined averages 12% of all students or 15% of all US students. At Reynolda, the percent minorities is 9% for all students or 10% of US students. International students comprise 20% of all students at Bowman Gray and 16% 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 most commonly come. Comparing the distribution of nationalities between new and continuing students, there are somewhat more new students coming from Europe and Africa, fewer from Asia, and steady albeit small numbers from South America.

Table 8 lists the masters and PhD degrees awarded by program. About the same total number of degrees was awarded in 2009-10 as 2008-09 but the distribution changed, with 18% fewer PhDs and 11% more masters degrees being awarded. The change in the number of PhDs was due to reductions in Bowman Gray programs.

Tables 9A and 9B present the time to degree completion and percent degree completion for each program. Across all programs, the average for PhD completion is 5.5 years, much lower than the ~7-year national average for students in the life sciences, with values ranging from 4.5 to 6.9 years among programs. Time to masters degree completion averages 2.75 for all programs or 2.6 for all full-time programs with considerable variation among programs. Concerning percent degree completion, 66% of students entering PhD programs in the Fall 2003 completed their programs within the intervening seven (7) years. The percent PhD program completion is twice as great for Bowman Gray compared with Reynolda programs, with considerable variation among individual programs. For students entering masters programs in the Fall 2008, an impressive 80% complete their MA or MS program in the intervening two years. Completion rates are higher at Reynolda than Bowman Gray, with again considerable variation among individual programs.

Table 10 summarizes our graduate's plans at the time of their graduation. Across all PhD graduates, over half (54%) go into postdoctoral positions, with 17% moving on to other professional degree programs, 14% being employed at Universities or other higher-education settings, 5% having other kinds of jobs, and 10% not yet knowing their plans. For masters graduates, 45% are moving to positions in settings other than higher education, 37% are going into PhD or professional degree programs, 12% have not yet finalized their plans, and 7% are moving into University positions. Thus our graduates appear to be proceeding successfully along a career trajectory in which their graduate training is being put to appropriate use in advancing their careers.

Table 11 shows financial aid by program. Tuition scholarships rose in keeping with the rise in tuition. P PhD stipends were raised \$2113 at Bowman Gray and \$500-\$4150 at Reynolda, with students lacking comparable coverage provided an additional \$1800 toward payment of health-insurance premiums. Reynolda PhD stipends remained lower than those at Bowman Gray but the difference is narrowing. Masters stipends were not changed for 2009-10, but awards for 2010-11 were raised at least 5% in each program.

Table 12 shows that the preponderance of support is from assistantships at Reynolda and research grants at Bowman Gray. Overall 98% of Bowman Gray and 68% of Reynolda students received some sort of financial aid.

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

TABLE 1. GRADUATE DEGREE PROGRAMSAT WAKE FOREST UNIVERSITY, 2009 - 2010

	Applications	Accepted	Matriculated
BAMB*	43	7 (16%)	2 (29%)
BIE	25	24 (96%)	18 (75%)
BIO	46	15 (33%)	10 (67%)
BMES*	167	43 (26%)	26 (60%)
CABI*	76	10 (13%)	5 (50%)
CHM*	60	13 (22%)	6 (46%)
CNS	157	17 (11%)	16 (94%)
CNS M/Div	4	3 (75%)	3 (100%)
СОМ	52	22 (42%)	15 (68%)
COMD	1	1 (100%)	1 (100%)
CPTS	10	8 (80%)	8 (100%)
CSC	21	11 (52%)	8 (73%)
EDU	63	36 (57%)	29 (81%)
ENG	59	28 (47%)	12 (43%)
HES	31	8 (26%)	8 (100%)
MCPA*	18	7 (39%)	2 (29%)
MICR*	55	6 (11%)	4 (67%)
MLS	22	16 (73%)	12 (75%)
MMTS*	43	16 (37%)	6 (38%)
MOGN*	35	7 (20%)	3 (43%)
МТН	20	14 (70%)	10 (71%)
NBAT*	17	6 (35%)	1 (17%)
NUSC*	43	12 (28%)	6 (50%)
PHY*	51	18 (35%)	8 (44%)
PSPR*	41	9 (22%)	8 (89%)
PSY	110	14 (13%)	11 (79%)
REL	24	13 (54%)	5 (38%)
VIF	21	12 (57%)	10 (83%)
Bowman Gray	549	132 (24%)	72 (55%)
Reynolda	766	264 (35%)	181 (69%)
TOTALS	1315	396 (30%)	253 (64%)
MD/PhD	65	6 (9%)	2 (33%)

TABLE 2. APPLICATION STATISTICS BY PROGRAM, FALL 2009: NUMBERSRECEIVED, ACCEPTED, AND MATRICULATED

*Includes MD/PhD Applicants

				RAPPL		ŕ				-	
	Male	Female	Unk	TOTAL			Hispanic	Asian	Am Ind		Unk
BAMB*	22	20	1	43	19	2		1		20	1
BIE	13	12		25	15	1	1			1	7
BIO	26	20		46	20	1	1	1		21	2
BMES*	95	68	4	167	64	4	4	16		75	4
CABI*	33	43		76	29	4	2	3		36	2
CHM*	43	17		60	25			1		33	1
CNS	30	127		157	123	15	4	4		4	7
CNS M/Div	1	3		4	3						1
СОМ	22	30		52	25	4		3		17	3
COMD		1		1						1	
CPTS	7	3		10	3			2		5	
CSC	17	4		21	4		1			15	1
EDU	21	42		63	52	2	4			2	3
ENG	21	38		59	48	2		2		2	5
HES	7	24		31	19	1	1			9	1
MCPA*	8	10		18	8	1		1		7	1
MICR*	21	34		55	22	5	2	1		22	3
MLS	5	17		22	15	3		1		1	2
MMTS*	27	16		43	22	2	2	4		12	1
MOGN*	15	20		35	16	2	1	1		12	3
MTH	9	11		20	10	1				7	2
NBAT*	11	6		17	9	1		1		6	
NUSC*	20	23		43	22	1		3		10	7
PHY*	39	12		51	14	1		1		33	2
PSPR*	19	22		41	20	2		3		13	3
PSY	36	74		110	86	6	3	4	1	6	4
REL	11	13		24	20	1	1			1	1
VIF	2	19		21						21	
BG	278	266	5	549	234	24	11	36	0	219	25
REY	303	463	0	766	479	38	16	17	1	173	42
TOTALS	581	729	5	1315	713	62	27	53	1	392	67
MD/PhD	44	21		65	42	1	1	11		5	5

TABLE 3A. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITYFOR APPLICANTS, FALL 2009

*Includes MD/PhD Applicants

Intern: Non-US address, ethnicity not checked

Applicants: Number of completed applications received

	Male	Female	Unk	TOTAL			, FALL 20 Hispanic		Am Ind	Intern	Unk
BAMB	2	5		7	6					1	
BIE	13	11		24	15		2			1	6
BIO	9	6		15	11		1	1			2
BMES	24	19		43	32			3		8	
CABI	3	7		10	7	1				1	1
СНМ	7	6		13	6					7	
CNS	4	13		17	14	2	1				
CNS M/Div	1	2		3	3						
СОМ	15	7		22	14	1		1		5	1
COMD		1		1						1	
CPTS	7	1		8	3			2		3	
CSC	11			11	4		1			5	1
EDU	13	23		36	34						2
ENG	10	18		28	22			2		2	2
HES	2	6		8	7					1	
MCPA*	3	4		7	5					1	1
MICR*	3	3		6	3	1				1	1
MLS	4	12		16	11	3		1			1
MMTS	8	8		16	9	1		1		4	1
MOGN*	5	2		7	6						1
MTH	8	6		14	8					4	2
NBAT*	4	2		6	4					2	
NUSC*	3	9		12	10					1	1
PHY	13	5		18	7					10	1
PSPR	5	4		9	4			1		2	2
PSY	4	10		14	13						1
REL	4	9		13	11					1	1
VIF	1	11		12						12	
BG	67	65	0	132	89	3	0	7	0	25	8
REY	119	145	0	264	180	6	5	5	0	48	20
TOTALS	186	210	0	396	269	9	5	12	0	73	28
MD/PhD	5	1		6	6						

TABLE 3B. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITYFOR ACCEPTED STUDENTS, FALL 2009

*Includes MD/PhD Accepted

Intern: Non-US address, ethnicity not checked

Accepted: Students to whom offers of admission were made

	Male	Female	Unk	TOTAL			Hispanic	Asian	Am Ind	Intern	Unk
BAMB	1	1		2	2						
BIE	9	9		18	14	1	2	1			
BIO	7	3		10	9		1				
BMES	17	9		26	17			2		7	
CABI	2	3		5	4	1					
СНМ	3	3		6	3					3	
CNS	4	12		16	14	2					
CNS M/Div	1	2		3	3						
СОМ	10	5		15	7	1		2		5	
COMD		1		1						1	
CPTS	7	1		8	3			2		3	
CSC	8			8	5		1			2	
EDU	11	18		29	29						
ENG	5	7		12	11			1			
HES	2	6		8	7					1	
МСРА	1	1		2	1					1	
MICR*	2	2		4	2	1					1
MLS	2	10		12	11	1					
MMTS*	4	2		6	2			1		2	1
MOGN	2	1		3	2						1
MTH	5	5		10	9					1	
NBAT		1		1						1	
NUSC*	1	5		6	5						1
РНҮ	6	2		8	6					2	
PSPR	5	3		8	4					2	2
PSY	4	7		11	10			1			
REL	2	3		5	5						
VIF	1	9		10						10	
BG	42	30	0	72	42	2	0	5	0	17	6
REY	80	101	0	181	143	5	4	5	0	24	0
TOTALS	122	131	0	253	185	7	4	10	0	41	6
MD/PhD	1	1		2	2						

TABLE 3C. PROFILES BY PROGRAM WITH RESPECT TO GENDER, RACE, AND ETHNICITY FORMATRICULANTS, FALL 2009

*Includes MD/PhD Matriculants Intern: Non-US address, ethnicity not checked Matriculants: Students who enrolled

		ł	FALL 200	9			
	GRE Verbal	GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	MCAT
BAMB*	486	715	1201	3.7	3.5	105	33
BIE	560	654	1214	4.4	3.3		
BIO	504	696	1200	4.0	3.4	100	
BMES*	508	743	1251	4.0	3.5	120	34
CABI*	491	680	1171	3.8	3.4	102	33
CHM*	467	712	1179	3.7	3.4	96	35
CNS	511	575	1086	4.3	3.4	94	
CNS M/Div	528	640	1168	4.8	3.3		
СОМ	532	630	1162	4.5	3.4	108	
COMD	350	660	1010	3.5		107	
CPTS	537	667	1204	3.5	3.6	221	
CSC	508	739	1247	3.9	3.2	97	
EDU	530	618	1148	4.5	3.4		
ENG	603	566	1169	4.9	3.5	109	
HES	462	615	1077	3.9	3.4	102	
MCPA*	504	695	1199	3.8	3.3	183	33
MD/PhD							33
MICR*	521	684	1205	4.1	3.4	129	33
MLS					3.1		
MMTS*	514	692	1206	3.9	3.4	99	32
MOGN*	503	688	1191	4.1	3.5	97	31
MTH	494	750	1244	4.0	3.5	90	
NBAT*	478	691	1169	4.1	3.2	93	32
NUSC*	531	693	1224	4.4	3.4	98	31
PHY*	523	745	1268	3.7	3.3	92	31
PSPR*	496	695	1191	4.0	3.4	114	34
PSY	529	616	1145	4.6	3.4	90	
REL	571	577	1148	4.7	3.4		
VIF	399	475	874	3.6			
BG	506	677	1183	4.1	3.4	112	33
REY	515	641	1156	4.2	3.4	98	32
AVERAGE		659	1170	4.1	3.4	105	33

TABLE 4A. APPLICANT STANDARDIZED TEST SCORES AND GRADE POINT AVERAGES (GPA),FALL 2009

*Includes MD/PhD Applicants

TOEFL data reported as computer-based test results

	GRE Verbal	GRE Quantitative	i ` ´	, FALL 2009 GRE Analytical	GPA	TOEFL	MCAT
BAMB	559	701	1260	4.1	3.7		
BIE	569	666	1235	4.4	3.3		
BIO	589	689	1278	4.6	3.3		
BMES	519	760	1279	4.2	3.7	161	
CABI	525	682	1207	4.1	3.5		
СНМ	484	728	1212	3.7	3.4	98	
CNS	554	598	1152	4.7	3.4		
CNS M/Div	540	673	1213	5.0	3.2		
СОМ	590	659	1249	4.9	3.5	107	
COMD	350	660	1010	3.5		107	
CPTS	555	665	1220	4.0	3.6	258	
CSC	510	703	1213	4.0	3.2	93	
EDU	546	640	1186	4.7	3.5		
ENG	649	641	1290	5.0	3.6	109	
HES	486	651	1137	4.2	3.5		
MCPA*	587	690	1277	4.3	3.3	86	36
MD/PhD							33
MICR*	560	610	1170	4.4	3.6		32
MLS					3.1		
MMTS	533	707	1240	4.3	3.6	107	
MOGN*	583	675	1258	4.7	3.5		36
MTH	508	765	1273	4.1	3.5	90	
NBAT*	536	738	1274	4.4	3.4	88	34
NUSC*	585	696	1281	4.5	3.5	115	28
РНҮ	494	760	1254	4.0	3.4	98	
PSPR	486	654	1140	3.8	3.5	98	
PSY	622	706	1328	5.0	3.5		
REL	593	625	1218	5.0	3.5		
VIF	435	540	975	4.0			
BG	537	684	1221	4	3	115	33
REY	545	670	1215	4.5	3.4	99	
AVERAGE	541	677	1218	4.4	3.4	107	33

TABLE 4B. ACCEPTED STUDENTS STANDARDIZED TEST SCORES AND GRADE POINTAVERAGES (GPA), FALL 2009

*Includes MD/PhD Accepted

TOEFL data reported as computer-based test results

								MCAT	MCAT Scores	
	GRE Verbal	GRE Verbal GRE Quantitative	(V+Q)	GRE Analytical	GPA	TOEFL	Verb	Phys	Biol	Total
BAMB	545	099	1205	3.5	3.5					
BIE	560	643	1203	4.3	3.3					
BIO	583	668	1251	4.6	3.2					
BMES	506	751	1257	4.1	3.6	201				
CABI	522	648	1170	4.1	3.3					
CHM	462	720	1182	3.7	3.2	66				
CNS	556	602	1158	4.8	3.3					
CNS M/Div	540	673	1213	5.0	3.2					
COM	587	653	1240	4.7	3.5	107				
COMD	350	099	1010	3.5		107				
CPTS	555	665	1220	4.0	3.6	258				
CSC	537	999	1203	4.0	3.2	92				
EDU	537	634	1171	4.8	3.4					
ENG	683	663	1346	5.0	3.7					
HES	486	651	1137	4.2	3.5					
MCPA	440	730	1170	3.8	3.2	86				
MD/PhD							10	10	11	31
MICR*	580	637	1217	4.5	3.6		11	11	11	33
MLS					3.0					
STMM	516	740	1256	4.0	3.7	105				
MOGN	587	647	1234	4.3	3.4					
HTH	475	754	1229	4.1	3.5	82				
NBAT	490	800	1290	3.5		77				
NUSC*	554	632	1186	4.0	3.5		8	9	11	28
PHY	550	762	1312	4.3	3.2	98				
PSPR	488	657	1145	3.9	3.6	98				
PSY	629	715	1344	5.0	3.6					
REL	584	618	1202	5.3	3.3					
VIF	434	543	977	4.0						
BG	529	680	1209	4.2	3.4	118	10	10	11	31
REY	547	664	1211	4.5	3.3	96				
AVERAGE	538	672	1210	4.3	3.2	107	10	10	11	31

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*Includes MD/PhD Matriculants TOEFL data are reported as computer-based test results

	Pl	nD Progra	ums			
	PhD	MS	MD/PhD	Masters Programs	Unclassified	TOTAL
BAMB	19	1	1			21
BIE				18		18
BIO	25			13		38
BMES - WFU	21	5	1			27
BMES - VT	47	4				51
CABI	23					23
СНМ	37					37
CNS				33		33
CNS M/Div				5		5
СОМ				24		24
COMD				1		1
CPTS				27		27
CSC				17		17
EDU				29		29
ENG				22		22
HES				15		15
МСРА	20					20
MICR	20		1			21
MLS				68		68
MMTS	25					25
MOGN	21		1			22
MTH				18		18
NBAT	10					10
NUSC	28		3			31
РНҮ	29			3		32
PSPR	23					23
PSY				21		21
REL				13		13
VIF				17		17
UNCL-BG					36	36
UNCL-REY					21	21
BG	257	10	7	28	36	338
REY	91	0	0	316	21	428
TOTAL	348	10	7	344	57	766

 TABLE 5. STUDENT ENROLLMENT BY PROGRAM AND DEGREE, FALL 2009

	W	hite	Bl	ack	His	panic	As	ian	Am	Ind	Intern	ational	
	Male	Female	Male	Female		Female	Male	Female	Male	Female	Male	Female	TOTAL
BAMB*	9	8						1				3	21
BIE	5	9	1		2		1						18
BIO	16	12				1		1			4	4	38
BMES*	23	32	2			1	3	2			11	4	78
CABI	6	9		2			1	1			1	3	23
СНМ	6	12		1				1			9	8	37
CNS	8	21	1	3									33
CNS M/Div	2	2		1									5
СОМ	8	5	1	1	1		2				3	3	24
COMD												1	1
CPTS	8	7		2			4				5	1	27
CSC	10		1		1						5		17
EDU	11	18											29
ENG	8	12				1	1						22
HES	2	10									3		15
MCPA	3	8						1			4	4	20
MD/PhD§	4	1						1			1		7
MICR*	3	13		3		1					1		21
MLS	23	34	3	7				1					68
MMTS	4	12		3				1			2	3	25
MOGN*	7	6	1					1			1	6	22
MTH	7	9			1							1	18
NBAT	1	2		1				1			1	4	10
NUSC*	14	14			1		1				1		31
PHY	19	4									8	1	32
PSPR	9	9	1	1							2	1	23
PSY	7	13						1					21
REL	7	5										1	13
VIF											2	15	17
BG	87	120	4	12	1	2	9	8	0	0	29	30	302
REY	139	166	7	13	5	2	4	4	0	0	34	33	407
		•		· · · · · · · · · · · · · · · · · · ·									
TOTALS	226	286	11	25	6	4	13	12	0	0	63	63	709

TABLE 6. DEGREE-SEEKING STUDENT PROFILE BY PROGRAM, RACE AND ETHNICITY, INTERNATIONAL STATUS, FALL 2009

 SNot included in totals - already counted in programs of study

*Includes MD/PhD Matriculants

International - Non-US address, ethnicity not checked

	Continuina	US, AND I New	Programs of Study (#	of Students)
Country of Origin	Continuing Students	Students	Continuing	New
Argentina	1	Students	NBAT (1)	1100
Australia	1	1	HES (1)	VIF (1)
Austria	1	1	BIO (1)	$\mathbf{V}\mathbf{\Pi}$ (1)
Brazil	4	1		VIF (1)
Cameroon	4	1	CHM (2); VIF (2)	CPTS (1)
	1			
Canada	1	1	BIO (1) BIO (1); BMES (2); CABI (2);	HES (1)
China	26	9	CHEM (5); CSC (1); MCPA (7); MOGN (2); NBAT (1); PHY (5)	BMES (1); CHEM (1); COM (3); MMTS (1); MTH (1); PHY (2)
Columbia	5	2	BIO (2); BMES (1); VIF (2)	VIF (2)
Denmark		1		COM (1)
Dominican Republic	1		NBAT (1)	
Egypt	1		CHM (1)	
El Salvadore		1		VIF (1)
Germany	1		MMTS (1)	
Ghana	1		MICR (1)	
Guyana	1		BICM (1)	
			CABI (1); CHEM (5); CPTS (2); MMTS (1); MOGN (4); NBAT (1);	CPTS (1); MCPA (1); MMTS (1); PSPR (1)
			PHY (1); REL (1)	
Indonesia	2		PHY (1); REL (1) CHM (1); CSC (1)	
Indonesia Iran	2	1		BMES (1)
	2	1		BMES (1) VIF (1)
Iran			CHM (1); CSC (1)	
Iran Jamaica	1		CHM (1); CSC (1) VIF (1)	
Iran Jamaica Japan	1		CHM (1); CSC (1) VIF (1) COM (1)	
Iran Jamaica Japan Jordan	1 1 2	1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1)	VIF (1)
Iran Jamaica Japan Jordan Korea	1 1 2	1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1)	VIF (1) BMES (1)
Iran Jamaica Japan Jordan Korea New Zealand	1 1 2 2	1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2)	VIF (1) BMES (1)
Iran Jamaica Japan Jordan Korea New Zealand Norway	1 1 2 2	1 1 2	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2)	VIF (1) BMES (1) VIF (2)
Iran Jamaica Japan Jordan Korea New Zealand Norway Pakistan	1 1 2 2 1	1 1 2 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1)	VIF (1) BMES (1) VIF (2) CPTS (1)
Iran Jamaica Japan Jordan Korea New Zealand Norway Pakistan Peru	1 1 2 2 1 2	1 1 2 1 1 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1)
Iran Jamaica Japan Jordan Korea New Zealand Norway Pakistan Peru Romania	1 1 2 2 1 1 2 2 2	1 1 2 1 1 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1)
Iran Jamaica Japan Jordan Korea New Zealand Norway Pakistan Peru Romania Russian Federation	1 1 2 2 1 1 2 2 2 3	1 1 2 1 1 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1)
Iran Jamaica Japan Jordan Korea New Zealand Norway Pakistan Peru Romania Russian Federation Sierra Leone	1 1 2 2 1 1 2 2 2 3 1	1 1 2 1 1 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1) PSPR (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1)
IranJamaicaJapanJordanKoreaNew ZealandNorwayPakistanPeruRomaniaRussian FederationSierra LeoneSouth Africa	1 1 2 2 1 1 2 2 2 3 1	1 1 2 1 1 3	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1) PSPR (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1) COM (1); VIF (2)
IranJamaicaJapanJordanKoreaNew ZealandNorwayPakistanPeruRomaniaRussian FederationSierra LeoneSouth AfricaSyrian Republic	1 1 2 2 2 1 1 2 2 3 1 1 1	1 1 2 1 1 3	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1) PSPR (1) HES (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1) COM (1); VIF (2)
IranJamaicaJapanJordanKoreaNew ZealandNorwayPakistanPeruRomaniaRussian FederationSierra LeoneSouth AfricaSyrian RepublicThailand	1 1 2 2 2 1 1 2 2 3 1 1 1	1 1 2 1 1 3 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1) PSPR (1) HES (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1) COM (1); VIF (2) CPTS (1)
IranJamaicaJapanJordanKoreaNew ZealandNorwayPakistanPeruRomaniaRussian FederationSierra LeoneSouth AfricaSyrian RepublicThailandTurkey	1 1 2 2 1 1 2 2 3 1 1 1 1	1 1 2 1 1 3 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1) PSPR (1) HES (1) MOGN (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1) COM (1); VIF (2) CPTS (1)
IranJamaicaJapanJordanKoreaNew ZealandNorwayPakistanPeruRomaniaRussian FederationSierra LeoneSouth AfricaSyrian RepublicThailandTurkeyViet Nam	1 1 2 2 2 1 1 2 2 3 1 1 1 1 2	1 1 2 1 1 3 1 1 1	CHM (1); CSC (1) VIF (1) COM (1) BICM (1); PSPR (1) BMES (2) NBAT (1) BIO (2) VIF (2) CABI (1); NUSC (1); PHY (1) PSPR (1) HES (1) MOGN (1)	VIF (1) BMES (1) VIF (2) CPTS (1) CSC (1) COM (1); VIF (2) CPTS (1)

TABLE 7. PROFILE OF INTERNATIONAL STUDENTS BY COUNTRY, CONTINUING OR NEWSTATUS, AND PROGRAM, FALL 2009

	PhD Pr	ograms		
	PhD	MS	Masters Programs	TOTAL
BAMB	5	2		7
BIE				0
BIO	6		7	13
BMES - WFU	1		2	3
BMES - VT	3		5	8
CABI	1	1		2
СНМ	3		2	5
CNS			16	16
CNS M/Div			2	2
СОМ			6	6
COMD				0
CPTS			8	8
CSC			10	10
EDU			34	34
ENG			11	11
HES			7	7
МСРА	3			3
MICR	7	1		8
MLS			9	9
MMTS	5	1		6
MOGN	2			2
MTH			8	8
NBAT	1			1
NUSC*	5			5
PHY	4		1	5
PSPR	4	1		5
PSY			6	6
REL			6	6
VIF			11	11
BG	37	6	15	58
REY	13	0	136	149
TOTAL	50	6	151	207
MD/PhD	1			1

TABLE 8. DEGREES AWARDED BY PROGRAM AND
DEGREE, 2009-2010 AY

*Includes MD/PhD Graduates

	Numb	er of Years*	
	PhD	MS	MA
BAMB	5.0	5.6	
BIE			
BIO	6.9	2.7	
BMES	4.5	1.6	
CABI	5.9	2.6	
СНМ	4.7	2.3	
CNS			2.2
CNS M/Div			2.0
СОМ			2.0
COMD			
CPTS		3.3	
CSC		1.9	
EDU			1.3
ENG			2.3
HES		2.0	
MCPA	4.6		
MICR	4.6	3.3	
MLS			5.2
MMTS	4.9	3.0	
MOGN	4.5		
MTH			2.0
NBAT	5.6		
NUSC	4.9		
PHY	6.4	3.6	
PSPR	5.1	3.6	
PSY			2.0
REL			3.0
VIF**			3.0
BG	5.0	3.3	
REY	6.0	2.5	2.4
AVERAGE	5.5	2.9	2.4

TABLE 9A. TIME TO DEGREE BY PROGRAM,2009-2010

*Average of Years from matriculation to awarding of the degree **VIF Students not included in average (summer only)

	M	atricula	ted		Graduate	d	%	Completio	n
	PhD	MS	MA	PhD	MS	MA	PhD	MS	MA
BAMB	7			6			86%		
BIE									
BIO	5	7		2	4		40%	57%	
BMES	11	6		8	5		73%	83%	
CABI	4			4			100%		
СНМ	5	1		1			20%		
CNS			16			15			94%
CNS M/Div			2			2			100%
СОМ			8			6			75%
COMD		1							
CPTS		6							
CSC		8			5			63%	
EDU			35			35			100%
ENG			7			7			100%
HES		7			7			100%	
МСРА	5			3			60%		
MICR	6			3			50%		
MLS			13						
MMTS	9			8			89%		
MOGN	4			3			75%		
MTH			9			8			89%
NBAT	4			2			50%		
NUSC	4			3			75%		
PHY	5			2			40%		
PSPR	7			5			71%		
PSY			12			6			50%
REL			5			2			40%
VIF			11			11			100%
BG	61	13	0	45	5	0	74%	38%	0%
REY	15	23	118	5	16	92	33%	70%	78%
TOTAL	. 76	36	118	50	21	92	66%	58%	78%

TABLE 9B. DEGREE COMPLETION PERCENTAGES FOR FALL 2008MS MATRICULANTS AND FALL 2003 PHD MATRICULANTS

Undergraduate Institution Program Degree Plans BAMB Emory and Henry University PhD Post Doc, WFUSM Furman University Post Doc, Location Unknown Haldia Institute of Technology Post Doc, UT Southwestern Medical Center, Dallas, TX North Carolina Agricultural State Teaching, Location Unknown University Wright State University Post Doc, University of Colorado Health Sciences, Denver, CO Lab Technician, WFUHS North Carolina State University MS UNC-Greensboro Unknown **BIO** Davidson College Research facility (university, medical school, etc) PhD High Point University Post Doc or tenure-track position Kerala Agricultural University Post Doc, Oak Ridge National Laboratory UNC-Asheville Take a job in the future. UNC-Chapel Hill Employed with Alamance Community College Weber State University Post Doc or Faculty Mercer University MS Pursue PhD, Unknown Pursue PhD in Biology, Wake Forest University Muskingum College University of Vermont Take a job in the future. Wabash College Pursue PhD in Biology (Parasitology), Wake Forest University Wake Forest University Pursue PhD in Developmental Biology, Washington University in St. Louis Wake Forest University Pursue MD, Wake Forest University School of Medicine Wake Forest University Teaching **BMES** Thadomal Shahani Engineering College PhD Research Fellow, Massachusetts General Hospital, Boston, MA Massachusetts Institute of Technology MS Unknown CABI Canisius College PhD Post Doc, Location Unknown WeiFang Medical College MS Unknown **CHM** PhD Visiting Assistant Professor, Berry College Berry College Central South University Pursue MS/PhD in Engineering, Texas A&M University Instituto Technológico de Estudios Pursue PhD in Drug Discovery, University College Superiones de Monterrey London Postdoc, Northwestern University Nankai University University of Philosophy, Sciences and College Professor, Public University of Brazil Literature of Guaxupé **CNS** MA Pursue PhD; Counselor, Winston-Salem/Forsyth Appalachian State University County Schools College of William and Mary Counselor, Location Unknown Counselor, Location Unknown College of William and Mary

CNS	East Carolina University		Chaplain/Counselor, Church, hospital, or counseling center, Location Unknown
	George Fox University		Counselor, Location Unknown
	Gettysburg College		School Counselor, Location Unknown
	Mary Baldwin College		School Counselor (high school), Public school system
	North Carolina A&T State University		Mental Health Counselor, Location Unknown
	Northern Arizona University		Pursue PhD in Psychology, Location Unknown; Academic Advisor, Location Unknown
	Northwest University		School Counselor, High School
	UNC-Asheville		School Counselor, Winston-Salem/Forsyth County
	UNC-Greensboro		Pursue PhD, Location Unknown; Pursue job
	University of Georgia		Pursue PhD, Location Unknown; Counselor, Location Unknown
	University of Iowa		Counseling, Hospice of Winston-Salem
	University of Toledo		Counseling, Location Unknown
	Vanderbilt University		Professional Counselor, Location Unknown
	Wake Forest University		Remain at current position at WFU.
	Winston-Salem State University		Pursue PhD; Counseling, Location Unknown
СОМ	Clemson University	MA	Take a job in the future.
	Purdue University		Pursue further education; Communications Director, Non-Profit Organization
	University of Iowa		Teacher, community college
	University of Virginia		Health Communication, Conference Planning and Development, Thompson Publishing
	Wake Forest University		Pursue PhD in Communication; Debate Coach
	Wake Forest University		Take a job in the future.
CPTS	College of William & Mary	MS	Faculty, WFUSM
	Duke University		Faculty, WFUSM
	Furman University		Faculty, WFUSM
	North Carolina State University		Faculty, WFUSM
	University of Alabama		Faculty, WFUSM
	University of California, San Diego		Neonatologist, Mooresville, NC
	University of Medicine Timisoara		Faculty, WFUSM
	Youngstown State University		Faculty, WFUSM
CSC	Appalachian State University	MS	Pursue PhD in Computer Science, University of Toronto
	Bandung Institute of Technology		Pursue PhD in Molecular Genetic and Genomic, Wake Forest University
	Elon University		Programmer
	Elon University		Associate Games Programmer, Cryptic Studios
	Elon University		Computer Programmer, Location Unknown
	Guilford College		Pursue MD, Wake Forest University School of Medicine
	North China University of Technology		Pursue PhD in Computer Science and Informatics, Emory University
	Wake Forest University		Analyst/Programmer I, WFUBMC Department of Biostatistics

CSC	Wake Forest University Wake Forest University		Computer Consultant Pursue PhD; Pursue job
EDU	Appalachian State University Appalachian State University Appalachian State University Clemson University	MAEd	Teaching, North Iredell High School Biology Teacher, Cleveland County Schools Teacher, Winston-Salem/Forsyth County Schools Pursue Master's in Public Administration, Location Unknown; Teaching, Parkland High School
	Davidson College		Plans Unknown
	Davidson College		Pursue PhD or EdD; Teaching
	Georgetown University		Pursue further education; Program Manager, Jumpstart
	Lipscomb University		High School Teacher
	Mercer University		Teacher, Person High School
	National University of Colombia		Pursue Doctorate in Education, Location Unknown; Bilingual Teacher 4th, Basalt Elementary School
	National University of Tucuman		Pursue further education; pursue a job
	UNC-Chapel Hill		Spanish Teacher, Winston-Salem/Forsyth County Schools
	UNC-Chapel Hill		Pursue PhD Educational Administration; Teacher, Cedar Ridge High School, Hillsborough, NC
	UNC-Chapel Hill		Teacher, Winston-Salem/Forsyth County Schools
	UNC-Chapel Hill		High School English Teacher, River Mill Academy
	UNC-Chapel Hill		High School Social Studies Teacher, South Brunswick High School
	UNC-Chapel Hill		Teacher, Winston-Salem/Forsyth County Schools
	UNC-Chapel Hill		English or Social Studies Teacher, Davie County High School
	UNC-Chapel Hill		Math Teacher, South Stokes High School
	UNC-Chapel Hill		Teaching
	UNC-Chapel Hill		Pursue PhD in Education, Location Unknown; Teaching, Public Schools
	UNC-Charlotte		Teacher, Public School
	UNC-Greensboro		High School Mathematics Teacher, Winston- Salem/Forsyth County Schools
	United States Air Force Academy		Pursue further education; High School Teacher, Winston-Salem/Forsyth County Schools
	University del Valle – Colombia		Pursue PhD in Education, Location Unknown; ESOL Teacher, Graham Park Middle School
	University of Alabama		Teacher, Hoover City Schools, AL
	University of Tennessee		Pursue further education; Teaching, Winston- Salem/Forsyth County Schools
	University of the West Indies		Pursue PhD in unknown field, Location Unknown; Teaching at a school
	University of the West Indies		Pursue PhD in Counseling, Location Unknown; Teacher or Assistant Principal
	Wake Forest University		Teacher, Norcross High School, Georgia
	Wake Forest University		Pursue PhD in Education, Harvard University; Pursue a job
	Wake Forest University		Pursue PhD in Spanish Language, Location Unknown; Spanish Teacher, Parkland High School

EDU	Wake Forest University		High School Math Teacher, Mount Tabor High School, Winston-Salem, NC
	Wake Forest University		Teacher, Providence Day School
	Wake Forest University		Spanish Teacher, Charlotte Country Day
ENG	Averett University	MA	Pursue PhD in English, Location Unknown; Teaching English, Location Unknown
	Carson-Newman College		Teaching, College, community college, or high school, Location Unknown
	Centre College		Teaching, Location Unknown
	Colby College		Teacher, Norfolk Academy
	DePauw University		Volunteer, Americorps
	St. Andrew's Presbyterian College		Teacher, Location Unknown
	UNC-Chapel Hill		Technical Writing (grants, policy, etc.), Location Unknown
	University of Connecticut		Pursue MAT; Teaching, School System
	University of Georgia		Pursue PhD in English, Location Unknown;
			PR/Publishing/Other
	University of Texas at Austin		Plans Unknown
	Wake Forest University		Pursue PhD in English, Location Unknown; English Teacher, Prep Academy or Community College
HES	Auburn University	MS	Exercise Physiology, Forsyth Medical Center (Cardiac Rehab)
	Medaille College		Teacher or Research Assistant/Coordinator, Location Unknown
	Stellenibosch University		Pursue PhD, Ohio State University
	University of California at Davis		Pursue PhD in Clinical Exercise Science, Ball State University
	University of Florida		Pursue PhD, Location Unknown; Research Assistant, Duke University Medical Center
	University of Wollongong		Pursue PhD in Exercise Physiology, University of Queensland, Australia
	University of Wyoming		Exercise Physiology, Forsyth Medical Center
МСРА	Catawba College	PhD	Post Doc, Vanderbilt University School of Medicine, Nashville, TN
	University of Massachusetts		Research, Location Unknown
	University of Oklahoma		Research Fellow, WFUSM
MICR	East Carolina University	PhD	Post Doc, Duke University Medical Center, Durham, NC
	Eastern Kentucky University		Unknown
	Fudan University		Research Analyst, Henry M. Jackson Foundation, Rockville, MD
	Furman University		Post Doc, University of Alabama – Birmingham, Birmingham, AL
	McMurray University		Post Doc, Tulane University, New Orleans, LA
	North Carolina State University		Post Doc, Location Unknown
	University of South Carolina		Post Doc, University of Georgia, Athens, GA
	Wake Forest University		Post Doc, Location Unknown

Appalachian State University Dartmouth University Salem College St. Andrews Presbyterian College UNC-Chapel Hill UNC-Chapel Hill University of Colorado Wake Forest University Yale University	MALS	Plans Unknown Pursue MA in Bioethics, Wake Forest University Already Employed Already Employed, Analyst, WFUHS Remain Video Coordinator, Wake Forest Men's Basketball Already Employed Plans Unknown Pursue MBA, Location Unknown Pursue further education; Remain at current position.
Davidson College Louisiana State University State University of New York, Oswego University of Florida University of Iowa High Point University	PhD MS	Post Doc, Location Unknown Faculty, WFUSM Post Doc, National Cancer Institute, Bethesda, MD Unknown Post Doc, University of Florida College of Pharmacy, Gainesville, FL Pursue PA Degree
Susquehanna University University of Missouri – Columbia	PhD	Post Doc, Location Unknown Post Doc, Location Unknown
Berry College Duke University (BA), Winston-Salem State University (BS) Gettysburg College Gettysburg College Meredith College UNC-Asheville University of Connecticut Wake Forest University	МА	 Pursue PhD in Mathematics, Location Unknown Pursue PhD in Math, University of South Carolina; Instructor of Math, Winston-Salem State University Pursue Master's in Education, Wake Forest University; Math Teacher, Location Unknown Take a job in the future. High School Teacher, NC Public Schools Pursue PhD in Mathematics, Clemson University Engineer, Location Unknown Take a job in the future.
Elon University	PhD	Unknown
Macalester College Miami University of Ohio North Carolina State University Presbyterian College University of Mary Washington	PhD PhD	Post Doc, WFUSM Post Doc, WFUSM Pursue MD, WFUSM Post Doc, University of Maryland School of Medicine, Baltimore, MD Professor, Warren Wilson College, Asheville, NC
Birmingham-Southern College Pennsylvania State University Sichuan University University of Mary Washington Fudan University	PhD MS	Postdoc, Friedrich-Schiller University at Jena Teaching/Research Quantitative Analysis, Finance Company Postdoc, Wake Forest University Pursue PhD in Physics, Wake Forest University
	 Dartmouth University Salem College St. Andrews Presbyterian College UNC-Chapel Hill UNC-Chapel Hill UNC-Chapel Hill UNC-Chapel Hill UNC-Chapel Hill UNC-Chapel Hill University of Colorado Wake Forest University Yale University Davidson College Louisiana State University State University of New York, Oswego University of Florida University of Iowa High Point University Susquehanna University University of Missouri – Columbia Berry College Duke University (BA), Winston-Salem State University (BS) Gettysburg College Gettysburg College Meredith College UNC-Asheville University of Connecticut Wake Forest University Elon University Macalester College Miami University of Ohio North Carolina State University Presbyterian College University of Mary Washington Birmingham-Southern College Pennsylvania State University Sichuan University 	Dartmouth University Salem College St. Andrews Presbyterian College UNC-Chapel HillUNC-Chapel HillUNC-Chapel HillUNC-Chapel HillUniversity of Colorado Wake Forest University Yale UniversityDavidson College Louisiana State University State University of New York, Oswego University of Florida University of Florida University of IowaHigh Point UniversityMSSusquehanna University University of Missouri – ColumbiaMABerry College Duke University (BA), Winston-Salem State University of Connecticut Wake Forest UniversityMACettysburg College Meredith College UNC-Asheville University of Connecticut Wake Forest UniversityPhDMacalester College Miami University of Ohio North Carolina State University Presbyterian CollegePhDMine University of Mary WashingtonPhDBirmingham-Southern College Pennsylvania State University Sichuan University of Mary WashingtonPhD

PSPR	College of William & Mary	PhD	Post Doc, University of Pennsylvania, Philadelphia, PA
	Hampton University		Unknown
	North Carolina Central University		Laboratory Technician, Location Unknown
	Pacific University		Post Doc, Vanderbilt University, Nashville, TN
	Wake Forest University		Post Doc, Emory University, Atlanta, GA
PSY	Appalachian State University	МА	Pursue PhD in Psychology, The University of Toronto
	Christopher Newport University		Research Coordinator/Associate, Location Unknown
	Duke University		Pursue PhD in Clinical Psychology, Louisiana State University, Graduate Assistant/TA, Louisiana State University
	Furman University		Pursue PhD in Clinical Psychology, University of Alabama at Birmingham
	Furman University		Pursue PhD in Social/Personality Psychology, Michigan State University
	University of Illinois, Urbana-		Pursue PhD in Clinical Psychology, University of
	Champaign		Oregon
REL	Bluefield College	МА	Pursue DMin, Fuller Theological Seminary; Clergy at a Religious Institution
	Carson-Newman College		Pursue PhD in Religion, Drew University
	College of the Holy Cross		Pursue PhD in Religion, Location Unknown; Teaching, Jesuit High School
	Salem College		Pursue further education.
	University of Washington		Pursue PhD in Hebrew Bible or Jewish Studies, Location Unknown

		Per Course			Master Teacher	Minority	Dean's
	Tuition#	Tuition	Stipend*	Fellowship	Fellows	Fellowships	Assistantships
BAMB	30,658		22,885				
BIE	30,358						
BIO - MS	30,358		17,350				
BIO - PhD	30,358		20,000				22,000
BMES	30,658		22,885				
CABI	30,658		22,885				
СНМ	30,358		20,500				22,500
CNS	30,358		6,000				
CNS M/DIV	30,358						
СОМ	30,358		8,000	4,000			
COMD	30,658		22,885				
CPTS	30,658		22,885				
CSC	30,358		12,500				
EDU	30,358		6,000		6,000		
ENG	30,358		8,000	4,000			
HES	30,358		8,500				
MCPA	30,658		22,885				
MD/PhD	30,658		22,885				
MICR	30,658		22,885				
MLS		1,008					
MMTS	30,658		22,885				
MOGN	30,658		22,885				
MTH	30,358		10,500	4,000			
NBAT	30,658		22,885				
NUSC	30,658		22,885				
PHY	30,358		18,650				20,650
PSPR	30,658		22,885				
PSY	30,358		8,500				
REL	30,358		8,000	4,000			
VIF		405					

TABLE 11. FINANCIAL AID AMOUNT BY PROGRAM, 2009-2010 AY

#Tuition of \$30,658 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.

BAMBGraduateBAMBGraduateBAMB6BIE6BIE6BIO6BMES*WFU6BMES*WFU6BMES*WFU6BMES*WFU6CMM6CMM6CMM6CMM6CMM6CMM6CMM6CNS6CMM6CNS7COMD7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7CNS7MICR*5MCS*7MICS*7NUSC*6NUSC*6	Insi	Institutional Support			ţ				
		no mitoman	ıpport		Exte	External Support	rt	Uther Support	
	p Fellowship	Assistant- ship	Non-grad Institutional	Tuition Scholarship	Training Grant	Research Grant	Indiv Award	Self	TOTALS
.WFU **.WFU **.********************************						14	1		21
**.WFU								18	18
**_WFU *_VTS *_VTS *_* *_* *_* *_*	1	23	1	2		9	1	4	38
			2			18	1		27
									51
			1		9	6	1		23
	1	17		1		15		3	37
			8	25					33
				5					Ŋ
	1	16		9				1	24
					1				1
				ŝ	7			17	27
		6		2		4	1	1	17
			5	19					29
		5		12				3	22
		14		1					15
* * * *					5	10	2		20
***					2	12	2		21
* * *			7					61	68
* * *			1	1	1	15	2		25
* *					1	17			22
		13		3		1			18
						8			10
				3	3	13	9		31
	1	15	1	1		12	1	1	32
PSPR 5			1		5	10	1	1	23
		13	1	4		3			21

	TABLE 1	2. SOURCES	OFFINAN	TABLE 12. SOURCES OF FINANCIAL AID BY PROGRAM AND TYPE OF SUPPORT, 2009-2010 AY	PROGRAM A	ND TYPE	OF SUPP(UKT , 20	09-2010 AY	
		Ins	Institutional Support	pport		Exte	External Support		Other Support	
	Graduate	Dean's	Assistant-	Non-grad	Tuition	Training	Training Research Indiv	Indiv		
	Fellowship	Fellowship Fellowship	ship	Institutional	Scholarship	Grant	Grant Award	Award	Self	TOTALS
REL	1			ŝ	8				1	13
VIF									17	17
UNCL-BG				13		16	3		4	36
UNCL-REY				11				1	6	21
BG	48	0	0	18	7	47	129	16	22	338
REY	9	4	125	37	89	0	41	4	119	428
TOTAL	. 57	4	125	55	96	47	170	20	141	200

A NID TUDE SOLIDCES OF FINIANCIAL TARIE 12

*Includes MD/PhD Support

SVirginia Tech support information not available $^{\wedge}$ Awarded Spring 2009

APPENDIX

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

GRADUATE PROGRAM DIRECTORS Ulrich Bierbach, Chemistry MS, PhD Donald Bowden, Molecular Genetics & Genomics PhD Bridget Brosnihan & Richard Loeser (co-directors), Molecular Medicine & Translational Science MS, PhD Mary Dalton, Documentary Film MA, MFA Samuel Gladding, Counseling MA, MA/MDiv Dwayne Godwin, PhD (any field)/MBA David Goff & Ann Geiger (co-directors), Clinical & Population Translational Sciences MS, MS/MD Martin Guthold, Physics MS, PhD Katherine Holzbaur, Biomedical Engineering MS, PhD Simeon Ilesanmi, Religion MA, joint MA/JD Sara Jones & Jeff Weiner (co-directors), Physiology & Pharmacology PhD David John, Computer Science MS Ellen Kirkman, Mathematics MA Scott Klein, English MA Paul Laurienti, PhD (any field)/MD Allan Louden, 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 Salsbury, Structural & Computational Biophysics Certificate (with application to physics, chemistry, biology, biochemistry and molecular biology, computer science, or mathematics) Karin Scarpinato, Cancer Biology PhD Brad Tharpe, Bioethics MA, Certificate, MA/JD, MA/MD Eric Wilson, Liberal Studies MALS Cathy Seta, Psychology MA Brian Tague, Biology MS, PhD Suzy Torti, Biochemistry and Molecular Biology PhD Charles Wood, Comparative Medicine MS **GRADUATE COUNCIL MEMBERS** Bridget Brosnihan, Policy Committee Member Christa Colyer, Curriculum Committee Member

Scott Cramer, Credentials/Nominations Committee Member

Kate Egan, Policy Committee Member

Susan Fahrbach, Policy Committee Member

Martin Guthold, Credentials/Nominations Committee Member

Summer Hanna, Curriculum Committee Member David John, Policy Committee Chair Anthony Liguori, Policy Committee Member Leah McCoy, Credentials/Nominations Committee Member Carol Milligan, Curriculum Committee Member David Ornelles, Secretary, Credentials/Nominations Committee Member Greg Shelness, Curriculum Committee, Chair Eric Wilson, Curriculum Committee Member

Ex officio:

Lorna G. Moore, Dean Linda McPhail, Associate Dean, ex officio Randall Rogan, Associate Dean, ex officio

UNIVERSITY SENATE REPRESENTATIVES

Greg Kucera, Hematology/Oncology Kathy Kron, Biology Mike Robbins, Radiation Oncology

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** Kate Holzbaur Donna Henderson Marina Krcmar Steve Kridel Brian McCool John Parks Paul Pauca Gale Sigal Shay Soker Edward Swords Frank Tupper Michael Tytell

Students:

Anna Castelaz Lindsay Decker Anna Gilkey Leigh Graham **Robert Gould** Tommy Guy **Clayton Honeycutt** Carolyn Jones Brian Kolb Katie Martucci Joe McQail Peter Meindl **Elizabeth Mills Emily Moorefield** Tam Nguyen Kristen Norman **Clinton Orebaugh Stacy Reeves** John Scott Nathan Shurk **Oliver Thomas** Matt Trump **Roberta Turner**

B. List of Graduate School Staff

Debbie Deheck, Assistant to the Dean/Business Manager, *Reynolda Campus* Carol DiGiantommaso, Admissions, *Reynolda Campus* Wanda Duncan, Graduate Council/Graduate Faculty Kelley Reavis, Student Records, *Bowman Gray Campus* Susan Pierce, Registrar/Coordinator, *Bowman Gray Campus* Michelle Silveri, Data Entry, *Reynolda Campus* Sheila White, Student Records Coordinator, *Reynolda Campus* Beth Whitsett, Admissions/Webmaster, *Bowman Gray Campus*



GRADUATE SCHOOL of ARTS & SCIENCES