M.S. & Ph.D. in Biostatistics

Graduate Student Handbook

(July 2017)

Department of Biostatistics
College of Public Health and Health Professions
College of Medicine

http://www.biostat.ufl.edu

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Introduction

This handbook is intended to provide direction for you as you navigate through the Biostatistics M.S. and Ph.D. Programs.

Most of these requirements have been established by the Graduate School http://gradschool.ufl.edu/, the University of Florida, or the UF Board of Trustees. Some additional policies and requirements have been established by the Biostatistics Ph.D. Program to meet the needs of our department and the diversity of environments in which our students work. Graduate students should also become familiar with the Graduate School Catalog, the official public document of the Graduate School. You can find the current Graduate School Catalog at http://graduateschool.ufl.edu/academics/graduate-catalog. The university also publishes a Graduate Handbook that includes policies and guidance for graduate students at http://graduateschool.ufl.edu/media/graduate-school/pdf-files/handbook.pdf

Policies and requirements listed in this handbook are either clarifications of those described in the Graduate Catalog and Graduate Handbook, or additional requirements or policies of the Biostatistics M.S. or Ph.D. Programs. The M.S. and Ph.D. Programs are administered through the Department of Biostatistics, and the Colleges of Medicine and Public Health and Health Professions. The Graduate School establishes and administers graduate student policies and procedures campus-wide for the University of Florida.

Each student is responsible for becoming informed and observing all program regulations and procedures. The student must be familiar with Graduate Catalog and Graduate Handbook general regulations and requirements, specific degree program requirements, and offerings and requirements of the major academic unit. Any exceptions to the policies stated in the Graduate Catalog or Graduate Handbook must be approved by the Dean of the Graduate School.

We hope that this handbook is helpful to you. Please let us know if there is additional information we should include.

PART I: The University of Florida

Overview of UF

The University of Florida is a major research university and one of only 17 public, land-grant universities that belong to the Association of American Universities. It is the state's oldest and most comprehensive university and is among the nation's most academically diverse public higher education institutions. UF has a long history of established programs in education, research, health care and service.

UF has a 2,000-acre campus and more than 900 buildings, including 170 with classrooms and laboratories. UF's extensive capital improvement

program has resulted in facilities ideal for 21st century academics and research, including the Emerging Pathogens Institute building; the Cancer and Genetics Research Center; the Biomedical Sciences Building; and the Proton-beam Therapy Center in Jacksonville. The new Clinical and Translational Research Building, which houses the Department of Biostatistics, was completed in July 2013.

The Health Science Center

The UF Health Science Center is the country's only academic health center with six health-related colleges located on a single, contiguous campus. They include the colleges of dentistry, medicine, nursing, pharmacy, public health and health professions, and veterinary medicine. The colleges teach the full continuum of higher education from undergraduates to professional students to advanced post-doctoral students, enrolling over 6,000 students each year. UF is a leader in interdisciplinary research and education as a result of a long-term strategy to create physical facilities and provide strong academic support for collaboration.

The Health Science Center is also a world leader in interdisciplinary research, generating 52% of UF's total research awards. Major institutes and centers, including the Clinical and Translational Science Institute (www.ctsi.ufl.edu), the Emerging Pathogens Institute (www.epi.ufl.edu), the Institute on Aging (www.aging.ufl.edu), the Center for Environmental and Human Toxicology (toxicology.ufl.edu), the UF Health Cancer Center (www.ufscc.ufl.edu), the UF Genetics Institute (www.ufgi.ufl.edu), and the McKnight Brain Institute (www.mbi.ufl.edu), provide state-of-the-art environments for faculty from many colleges to address cutting edge research questions.

The Health Science Center is closely affiliated with Shands HealthCare, part of the University of Florida Health System, with eight hospitals including the academic hospitals Shands at UF with 630 beds in Gainesville and Shands Jacksonville with 696 beds in Jacksonville, Florida. Together with clinical programs and services across all HSC colleges, the UF Health partnership is helping to create Florida's future healthcare workforce.

The Health Science Center has recently completed a strategic planning process through which a core vision and values were reviewed and updated:

> *Together we strive to create unstoppable momentum toward the goal of improving individual and community health through discovery, clinical and translational science and technology, exceptional education and patient-centered, innovative, high-quality health care. Our core institutional values are:*
>
> *Excellence*
>
> | | |
> |---|---|
> | *Trust* | *Teamwork* |
> | *Accountability* | *Integrity* |
> | *Diversity* | *Innovation* |
>
> *Our institutional values are visualized with Patient and Community at the heart. But our objectives aren't purely clinical. A huge part of our institutional mission is, of course, education and research. And, ultimately, both are fundamentally intertwined with patients and community. Biomedical research, for example, can include fundamental research or highly translational work. Regardless, it ultimately is directed down the same*

path of improved health for patients, for families, for the community. Similarly, strong educational programs that train the next generation of health care providers are at the foundation of excelling in taking care of patients, of families, of the community. All these things together will propel us forward.

College of Public Health and Health Professions

The mission of the UF College of Public Health and Health Professions is to preserve, promote and improve the health and well-being of populations, communities and individuals. Consistent with recommendations of the Institute of Medicine's 2003 report Who Will Keep the Public Healthy?[1], the college fosters collaborations among public health disciplines and the other health professions in education, research and service.

In 2014 the college again received five-year accreditation from the Council on Education for Public Health. PHHP is the first college of public health and health professions in the nation to receive accreditation as a school of public health.

Education

The College of Public Health and Health Professions is one among the 49 U.S. universities that have achieved accreditation as a school of public health from the Council on Education for Public Health.

The college has nine departments: behavioral science and community health; biostatistics; clinical and health psychology; environmental and global health; epidemiology; health services research, management and policy; occupational therapy; physical therapy; and speech, language, and hearing sciences. The college offers a bachelor of health science, six master's, seven Ph.D. and two professional degree programs. The college houses 2,158 students and 156 faculty as of 2012.

In 2010, the department of epidemiology and biostatistics became two departments. These departments are jointly administered by the College of Public Health and Health Professions and the College of Medicine, reflecting the departments' collaborative missions to conduct research that capitalizes on synergies and to provide service that makes the best use of available resources.

Research

The college's research funding has more than doubled during the last decade, and its faculty members are among the most productive at the University of Florida. The college is ranked 19th in NIH funding among the 49 accredited schools of public health. In FY10-11 the college received over $21 million in grants and contracts. Over the past three years, the college has received more than $13 million in grants targeting health promotion through the treatment and prevention of HIV/AIDS, substance abuse, and obesity. PHHP researchers are collaborating with FSU colleagues on a grant to study concussions among young athletes. Pediatric research has expanded with the development of clinical

[1] Brief report available at http://www.nap.edu/catalog/10542/who-will-keep-the-public-healthy-educating-public-health-professionals

and translational studies in muscular dystrophy and attention deficit disorder. PHHP faculty are working on research projects close to home and in countries throughout the world on a diverse range of topics including Medicaid reform, driving safety in the elderly, rehabilitation following traumatic injuries, nutrition and physical activity, smoking cessation, malaria treatment, and cholera prevention, among many others.

Service

The speech, language, and hearing sciences department offers services at several UF Health locations, including Shands at UF, Hampton Oaks, Magnolia Parke and Park Avenue. The clinical and health psychology department provides psychological services for the entire Health Science Center and UF Physicians practices. Physical therapy students and faculty provide pro bono care to patients at the Equal Access Clinic and additional services to the community through student projects at locations such as Girl's Place. Master of Public Health students volunteer regularly to promote health and nutrition in Gainesville area schools. Statewide community outreach is offered through the Florida Center for Medicaid and the Uninsured and the Florida Office on Disability and Health, the state's first centralized program to coordinate Florida's disability programs and services. The college has launched a public health initiative in Haiti called A Better Tomorrow for Haiti. In addition, groups of students and faculty conduct annual international service projects in El Salvador, Mexico's Yucatan Peninsula and Nicaragua.

College of Medicine

The UF College of Medicine is acknowledged as having one of the strongest medical education programs in North America. Its mission is to improve health care in Florida, our nation and the world through excellence and consistently superior leadership in education, clinical care, discovery, and service.

Teaching

The college offers a variety of educational opportunities in addition to the medical degree, including the Interdisciplinary Program in Biomedical Sciences, which leads to a Ph.D. or an M.S. degree, and joint programs for both MD and Ph.D. degrees. Also part of the College of Medicine is the School of Physician Assistant Studies. The college plays an important role in the continuing education of resident physicians and fellows through its collaboration with the UF Faculty Group Practice Clinics and Shands HealthCare. The college offers residencies in 56 medical specialties and sub-specialties as well as clinical and research fellowships.

The College of Medicine has ranked in the top 50 medical schools for the past several years and includes 40 research-oriented basic and clinical academic departments, 1,642 students, 665 residents and fellows, and 932 faculty members. The Jacksonville campus, located 75 miles to the northeast, is home to more than 350 physicians and scientists delivering medical care in an urban setting, performing research and educating medical students and residents.

Patient care is provided by the UF Physicians Group Practice, a close collaboration with Shands at UF, the Malcolm Randall Veterans Affairs Medical Center, and several community health-care sites and other affiliated hospitals in Florida.

Research

College of Medicine faculty have attained national leadership in patient care, research and education related to the brain and spine, cancer, diabetes, drug design, genetics and organ transplantation. The college was responsible for 41 percent of UF's total extramural research awards for FY 2009, earning $226.9 million in research grants and contracts. The College of Medicine houses eight affiliated research institutes and 32 research facilities/centers.

UF was ranked the No. 1 public institution at transferring its research to the marketplace and is among the top 10 U.S. universities in licensing income. The university averages more than 50 issued patents each year. Two of the most widely recognized products to come out of research at the College of Medicine are Gatorade, a popular sports beverage, and Trusopt, an eye drop developed to treat certain forms of glaucoma.

Patient care

Patient care occurs at two principal locations — Gainesville and Jacksonville — and at more than 40 clinical practices. Clinical strengths are in cancer, neurosciences, aging, gene therapy, psychiatry and addiction medicine, transplantation and children's services. UF faculty members account for approximately 480,000 physician visits and 40,000 discharges annually.

The UF Health Shands Cancer Hospital, a 192-bed hospital designed to meet the area's growing need for cancer services, opened its doors to patients in November 2009. The hospital serves a variety of inpatients, including those receiving diagnostic and therapeutic oncology care. It also houses the Shands Critical Care Center for emergency and trauma services.

The Florida Proton Therapy Institute, located next to UF Health Jacksonville, is one of only five proton therapy treatment centers in the United States. Proton therapy delivers a highly precise and effective form of radiation to destroy tumors with little or no damage to adjacent healthy tissues.

Department of Biostatistics

The Department of Biostatistics (http://www.biostat.ufl.edu) was established in June 2010 to provide leadership and scholarship in Biostatistics for the Health Science Center.

The department is dedicated to training successful statistical scientists, performing cutting-edge theoretical and applied research and collaborating with investigators at UF and worldwide to further medical knowledge and address public health problems. The department is housed in both the Colleges of Public Health and Health Professions and Medicine, and the faculty are jointly appointed in order to create synergies resulting in:

- A strong, competitive research profile capitalizing on collective strengths, and
- Highly trained students who receive exceptional exposure to diverse expertise.

The mission of the Biostatistics department is to develop, disseminate and apply biostatistical and analytical methods for research in the health sciences, encompassing both research design and analysis. We strive to advance knowledge in biostatistics and health through educational programs for

students and researchers, and we provide leadership and outstanding scholarship in research, teaching, and service, in fulfillment of this mission.

Our faculty members include leaders in the development of statistical methods for clinical trials, survival analysis, decision theory and genetic studies. Their mission is to provide scholarship in biostatistics and partnership in research for the six colleges of UF's Health Science Center, as well as the Clinical and Translational Science Institute, the Emerging Pathogens Institute, the UF Shands Cancer Center, the McKnight Brain Institute and other academic units across UF.

Widely published in academic journals and well-funded by numerous sponsors, such as the National Institutes of Health, the National Children's Cancer Society and the Department of Veterans Affairs, biostatistics faculty members are performing critical scientific investigations that offer many opportunities for students in the department's Ph.D., M.S., and M.P.H. programs.

The Department is located in the Clinical and Translational Research Building, with the Center for Statistical Quantitative Infectious Disease (CSQUID) being located in Dauer Hall and Children's Oncology Group (COG) Statistics and Data Center located off-campus. The Department shares space with several other departments and UF's Clinical and Translational Science Institute and the Institute on Aging.

To learn more about the Department of Biostatistics, we invite you to explore our website.

In addition to the Ph.D. program, the department offers the Biostatistics concentration in the MPH program (http://mph.ufl.edu/prospective-students/mph/traditional-mph-degree/concentrations/biostatistics/) and an M.S. degree in Biostatistics that is available online and on-campus. Beginning in August, there will be 23 Ph.D. students, 28 M.S. students, 29 M.S. online students, and 8MPH students in academic programs in the department.

PART II: Ph.D. in Biostatistics

Program Overview

The Ph.D. in Biostatistics is a research degree and is granted on evidence of performing cutting-edge theoretical and applied research, as demonstrated in a dissertation presenting original research with a high degree of literary skill.

Graduates of the Biostatistics Ph.D. program will be able to:

- Conduct independent research in the development of new biostatistical methodology.
- Engage in successful collaborations with investigators in new quantitative fields.
- Write statistical methodology papers for peer-reviewed statistical and biostatistical journals.
- Write collaborative papers for peer-reviewed subject matter journals.
- Compete successfully for research and teaching positions in academic institutions, federal and state agencies, or private institutions.

The program consists of required coursework, successful completion of a qualifying examination, preparation and oral defense of a dissertation proposal, admission to candidacy, conduct of research,

preparation and oral defense of a dissertation. These elements and the associated activities are described in the sections below.

Student Learning Outcomes

The following specific learning outcomes are tracked annually by the program in order to assure that students are acquiring the skills they need and to identify areas in which the program should be improved.

SLO Type	SLO	Assessment Method	Delivery Mode
Knowledge	1. Communicate the underpinning of biostatistics concepts and methods	1. Student's performance on Ph.D. written exam.	Campus
Skills	2. Identify, research, and acquire new biostatistical concepts and methods on one's own	2. Student's performance on Ph.D. oral exam.	Campus
Skills	3. Develop and apply new biostatistical concepts and methods independently	3. Student's performance on dissertation defense	Campus
Professional Behavior	4. Display ethical behaviors, cultural sensitivity, teamwork, conduct and communications	4. Student's performance on a final consulting report	Campus
Professional Behavior	5. Participation in academic conferences to disseminate knowledge and represent the university	5. Successful presentation of a paper or poster at an academic conference	Academic Conference

Administration and Faculty

The Director of Graduate Study, and therefore of the Ph.D. program, is Babette Brumback, Ph.D. Dr. Brumback is located in the Clinical and Translational Research Building (CTRB), Room 5244. She may be reached by e-mail at brumback@ufl.edu. As Program Director, Dr. Brumback is responsible for academic oversight of the Ph.D. program, assuring student progress, and monitoring program accomplishments. Dr. Brumback appoints members of the qualifying examination committee, approves supervisory committees, and works closely with faculty members in the Department of Biostatistics who, as a group, serve as the program's Executive Committee. Dr. Brumback also collaborates with other members of the graduate faculty of the program (listed below) on issues for which specialized expertise is required.

The Ph.D. Program Assistant is Kristen Cason. Ms. Cason is responsible for maintaining student records and assisting the Program Director, Dr. Brumback. Students should get to know the Program Assistant and consider that person a friend and ally. For example, in most cases, the Program Assistant will submit the official documents required by the Graduate School, thus relieving enrolled students of that responsibility. The Biostatistics Ph.D. Program Assistant can be found in the Department of Biostatistics main office, Room 5220 in the CTRB. Her email address is kcason@ufl.edu.

The faculty of the graduate program are drawn from the Departments of Biostatistics and Statistics. Graduate program faculty members have been approved by the UF Graduate School to serve as mentors, program Committee Members, and teachers of graduate students. There are two levels of Biostatistics Graduate Faculty in Biostatistics. Doctoral Research Faculty can serve as Chair of a dissertation committee, in addition to serving as a mentor, graduate program Committee Member, and teacher of graduate students. Graduate Research Faculty can serve as co-Chair of a dissertation, provided that a Doctoral Research Faculty member serves as primary Chair.

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Student Guidance and Mentoring

In their first year of study, Ph.D. students are assigned a faculty advisor who serves in a mentorship role and provides feedback on course scheduling and results. After the student has accumulated 12 or more credits, or at the end of the second semester, the student will select the chair of the supervisory committee (see below) after conversations with Biostatistics faculty members and agreement of the selected member to serve in this capacity. Students will work closely with this faculty mentor. Students are expected to have an annual meeting with their faculty mentor(s) and the Director of Graduate Study, Dr. Brumback, during which time the student-mentor team will review the Annual Mentoring Review Form, Plan of Study, and the Individual Development Plan, copies of which are in the Appendix. All three forms should be completed by the student and faculty mentor before the meeting. The faculty mentor or student will then send a copy to the Director of Graduate Study via the program assistant.

In some instances, after one or more semesters, a student may wish to change mentors. This desire to change major professors could be for one of several reasons (e.g., redirection of perceived interests, funding availability, personality conflicts, etc.). Such changes are essentially automatic if the student is in good academic standing (minimum 3.0 GPA with no flags on registration record) and both faculty members agree to the change. In this case, a letter of notification to the director of the program, signed by the student and both faculty members (old and new), is all that is required. If the student is (a) not in good academic standing or (b) one or both faculty members do not agree to the change, then the request for change of major professor will be handled on a case-by-case basis. In this latter situation, the student would need to bring his or her situation to the attention of the Program Director for future action.

Supervisory Committee

Composition

The Supervisory Committee is proposed by the student's faculty mentor in consultation with the student, nominated by the director of the Ph.D. Program, approved by the chair of the department, and appointed by the Dean of the Graduate School. Each committee member should hold Graduate Faculty status with the Graduate School. The Dean of the Graduate School is an ex-officio member of all Supervisory Committees. The Supervisory Committee should be appointed as soon as possible, but no later than the beginning of the third semester of the doctoral program.

The supervisory committee consists of no fewer than four members selected from the UF Graduate Faculty. At least two members, including the chair, must be from the Ph.D. program graduate faculty, and at least one member will be drawn from a different educational discipline with no ties to the home academic unit to serve as the external member. One regular member can be from the home or any other academic unit.

A co-chair from the same department may be appointed to serve during the planned absence of the supervisory committee chair. Co-chairs from outside the department may not substitute for the chair.

Roles and Responsibilities

The Supervisory Committee plays a very important role in each student's educational program. The committee:

- Provides optimum support and guidance to help the student meet his/her academic goals
- Informs the student of all regulations governing the Ph.D. degree. This does not absolve the students from the responsibility of becoming informed of these regulations.
- Participates in the oral qualifying exam, which must be attended by all members of the committee. After successful completion of the written and oral exam, the committee discusses and approves the student's dissertation topic, and if the student has passed the examination, to the committee's satisfaction, they will recommend the student's admission to candidacy.
- Conducts the final oral examination to satisfy itself that the dissertation is a piece of original research and a contribution to knowledge. The oral portion of the examination must be conducted in compliance with Graduate Council policies. If the examination is satisfactory, all members of the supervisory committee sign the Final Examination Report.

The student is encouraged to meet with the Supervisory Committee as often as possible, with a suggested frequency of one meeting per year. These meetings should be scheduled by the student. Students who are still uncertain about their dissertation topic by the beginning of their third semester may choose to create a general committee with their faculty mentor as chair, and members of the Departmental exam committee as members. Then, the student can change committee members later when they are more confident about the direction of their dissertation topic.

The faculty mentor serves as chair of the committee and oversees and supervises the student's research. To protect both the student's and the University's interests in this important task, the chair is required to give the student a yearly letter of evaluation in addition to the S/U grades awarded for the research courses 7979 and 7980. A copy of the letter of evaluation must be placed in the student's confidential departmental file. Each PhD student together with his or her supervisory committee chair will meet to review progress with the Director of Graduate Study every Fall, beginning with the second year and ending after advancement to candidacy. At that meeting, the student's plan of study and individual development plan will also be reviewed and updated.

Changes in Committee Membership

Since supervisory committees are formed early in the course of a student's program, changes in membership may occur as research interests are refined. Changes made to the supervisory committee must be approved by the Dean of the Graduate School as they occur. Changes need to be approved at least 30 days prior to the date of the Final Defense so that all new members will have ample time to become familiar with the dissertation. Committee changes cannot be made after a final defense takes place. All changes must be approved by the chair of the supervisory committee. The Ph.D. Program Director and the Program Assistant will facilitate appropriate changes to committees.

Curriculum

The Biostatistics Ph.D. program requires a minimum of 90 semester credits beyond the bachelor's degree. Applicants without a completed master's degree (i.e., Master of Science in Biostatistics or Statistics), will typically require at least one extra year of courses beyond the bachelor's degree. Students with an existing graduate degree in Biostatistics may petition to have courses substitute for some Ph.D. program courses. Any courses applied to the Ph.D. from outside the University of Florida are required to be approved by both the program and the Graduate School. This is covered in more detail below.

All course work must be completed within five calendar years after the oral qualifying examination, or that examination must be repeated.

The table below summarizes the course offerings and required components of the University of Florida Biostatistics Ph.D. degree. Students are required to discuss and receive approval from their assigned mentor/supervisory committee chair for their program curriculum. The list of courses included in the curriculum is updated at least annually. However, course availability varies over time so not all courses may be available every year. Students work with their mentors and the program director to identify appropriate substitutions.

CURRICULUM SUMMARY: PH.D. IN BIOSTATISTICS

Ph.D. in Biostatistics Curriculum Overview

The following four courses are required for all Ph.D. students and compose the biostatistics core of the program.

Course	Title	Hours
PHC 7066	Large Sample Theory	3
PHC 7090	Advanced Biostatistical Methods I	3
PHC 7091	Advanced Biostatistical Methods II	3
PHC 6068	Biostatistical Computing	3

The courses "Advanced Biostatistical Methods I and II" and "Biostatistical Computing" make up the methods and computing core of the program. These are advanced courses that cover the essentials of statistical methods and computing for different types of data. The course "Large Sample Theory" forms the theoretical part of the core and will provide students with the mathematical foundation necessary to do their dissertation research.

In addition, each student must complete six credits from the Public Health Core.

Course	Title	Hours
PHC 6001	Principles of Epidemiology in Public Health	3
PHC 6937	Introduction to Public Health	3

Students also are required to complete at least four additional biostatistics/statistics courses totaling 12 credits, or six additional biostatistics/statistics courses totaling 18 credits if the cognate option (see below) is not selected. Among the courses that may be used for this requirement are the following, but it is expected that 9 credit hours must be taken from the shorter list: PHC 6020, STA 6177, PHC 6937 Genetic Data Analysis, STA 6505, STA 6707, and STA 6209.

Course	Title	Hours
GMS 6827	Advanced Clinical Trials Methods	3
PHC 6937	Genetic Data Analysis	3
PHC 6020	Clinical Trials Methods	3
STA 6177	Applied Survival Analysis	3
PHC 6937	Stochastic Modeling	3
PHC 6937	Analytic Methods for Infectious Diseases	3
STA 6505	Analysis of Categorical Data	3
STA 6526	Nonparametric Statistics	3
STA 6707	Analysis of Multivariate Data	3
STA 6746	Multivariate Analysis	3
STA 6826	Stochastic Process I	3
STA 6827	Stochastic Processes II	3
STA 6876	Theory of Time Series	3
STA 6866	Monte Carlo Statistical Methods	3
STA 6209	Design and Analysis of Experiments	3
STA 6247	Advanced Topics in Design and Analysis	3
STA 6466	Probability Theory I	3
STA 6467	Probability Theory II	3
STA 7346	Statistical Inference	3
STA 7347	Advanced Inference	3
STA 7348	Bayesian Theory Statistics	3
STA 7527	Theory of Nonparametric Statistics	3

At least three Ph.D. elective courses are currently offered every year in addition to the core courses. Additional electives are also offered under the “Special Topics” number, STA 6934 or PHC 6937; examples of offerings in recent years including “Analysis of Spatial Data”, “Microarray Data Analysis”, and “Applied Bayesian Methods”. Other courses will be selected by students in consultation with their

supervisory committees. We expect the development of additional electives in the first few years of the program, including methodology for imaging, spatial data, and causal inference.

Cognate Option

Students have the option to explore a selected cognate field in some depth. The field and courses must be approved by the student's advisor. At least 6 credits of ordinally graded courses in the cognate field must be completed. Some examples of cognate areas include Genetics, Epidemiology, and Environmental Health. For Public Health cognate fields, 6 credits beyond the Public Health core are required. If the cognate option is not selected, 6 additional biostatistics/statistics elective credits are required instead.

Consulting Requirement

Students must acquire experience in the planning of experiments and establishing a collaborative interaction with an investigator. This requirement is fulfilled by registering for PHC 6063 (3 credits).

Journal Club

Students enrolled in dissertation research (PHC 7979 or PHC 7980) should take the one credit course Biostat Journal Club (PHC 7925) for at least three semesters.

A minimum of 90 credits beyond the bachelor's degree is required for the doctoral degree. Formal course work accumulated by students should be in the neighborhood of 70 credit hours. The remaining hours will be in PHC 7980 (dissertation research). The credits are broken down as follows:

Component	**# of credits**
Core Biostatistics courses	12
Core Public Health courses	6
Biostatistics/statistics electives	12
Consulting requirement	3
Cognate option or additional biostatistics/statistics electives	6
Previous M.S. in Biostatistics/Statistics	30
Biostat Journal Club	3
Dissertation	18
Total	**90**

In addition to prescribed coursework in the Ph.D. program, students are strongly encouraged to collaborate with their mentors and other faculty members on presentations at professional meetings, publications in peer-reviewed journals, and professional service, such as reviewing journal articles, consulting with community agencies, and serving on university committees.

Registration and Credit Transfers

Registration

A minimum of 90 credit hours beyond the bachelor's degree is required for the Ph.D. degree. All credits earned in the approved degree program count toward this minimum. PHC 7979 Advanced Research is open to doctoral students not yet admitted to candidacy. Students enrolled in PHC 7979 during the term they qualify for candidacy will stay in this registration unless the academic unit elects to change their enrollment to Research for Doctoral Dissertation (PHC 7980), which is reserved for doctoral students admitted to candidacy.

Full-time students in the Biostatistics Ph.D. program are required to register for a minimum of nine (each fall and spring Semesters) and six (summer session) credits while they are actively working toward their degrees. Students without a summer tuition waiver need not register in summer. Students receiving assistantships or fellowships must register for the number of credits required by the Graduate School. Ph.D. candidates will be required to register for a minimum of nine (fall and spring Semesters) or six (summer Session) credits of PHC 7980 Dissertation Research. For more information, see http://gradcatalog.ufl.edu/content.php?catoid=2&navoid=762#registration Students failing to register for two or more consecutive terms must submit an "Application for Readmission" if they wish to resume their graduate studies at the University of Florida. Registration in Ph.D. courses is managed by the Ph.D. program assistant.

Transfer of Credits

The student's Supervisory Committee will recommend the number of credits earned at another institution which are appropriate for transfer to the University of Florida. A maximum of 30 semester credits from a related Master's degree program at another accredited university can be applied to the 90-credit requirement. This transfer of credit must be requested by the Chair of the Supervisory Committee, and approved by the Supervisory Committee and the Director of the Ph.D. program with a petition to the Dean of the Graduate School with copies of the appropriate transcripts attached. All Master's degrees used for transfer of credit toward the 90-credit minimum must have been earned within seven years of the date that the Ph.D. is conferred. All courses beyond the Master's degree taken at another university, to be applied toward the Ph.D. degree at the University of Florida, must have been taken at an institution offering the doctoral degree and must be approved for graduate credit by the Graduate School of the University of Florida. All requests for transfer of credit from another institution should be performed by the end of the second year. All forms are initiated by the program assistant, who will facilitate approvals by the program director and the UF system.

Registration in Final Semester

All Ph.D. students must register for a minimum of either three (fall and spring Semesters) or two (summer Session) credits of PHC 7980 during the term they expect to graduate. All candidates must submit a "Degree Application" form on-line through ONE.UF (http://www.registrar.ufl.edu/services/degreeapp.html) by approximately the second week of their final term (see the Graduate Catalog or posted deadlines for the exact date). This application must be renewed for a subsequent term if all degree requirements are not fulfilled in the term in which the application was filed.

Unsatisfactory Scholarship

Any graduate student may be denied further registration if progress toward completing the program becomes unsatisfactory to the academic unit, college, or Dean of the Graduate School.

Unsatisfactory scholarship is defined as failure to maintain a B average (3.00 truncated) in all work attempted, or earning a grade of U in 1 or more credits of PHC 7979 or 7980. Graduate students need an overall GPA of 3.00 (truncated) and a 3.00 truncated) GPA in their major (and in the minor, if a minor is declared) at graduation. Students with less than a 3.00 (truncated) GPA may not hold an assistantship or fellowship. Graduate students earning less than a 3.0 GPA in a single semester or earning a grade of U in 3 of fewer credits of PHC 7979 or 7980 will be given a warning letter by the Director of Graduate Study. Earning less than a 3.0 GPA in the subsequent semester or earning a grade of U in more than 3 credits of PHC 7979 or 7980 will result in dismissal from the program.

Graduate students are considered to be in good academic standing if the most recent semester GPA is a 3.0 or higher (truncated),the overall GPA is 3.0 or higher (truncated), and all grades in PHC 7979 and 7980 are S

Qualifying Examination

The Ph.D. qualifying examination consists of a written test which covers coursework required of all students and an oral examination of the student's dissertation proposal.

Written Examination

The written qualifying examination is usually completed at the end of the first year of Ph.D. studies, for students entering with an M.S. in Statistics or Biostatistics, or at the end of the second year, for students entering with a bachelor's degree. The students will take the Part I qualifying exam consisting of questions from the following four courses: PHC 7066, PHC 6068, PHC 7090, and PHC 7091. In order to take the qualifying examination, the student must:

- Be in good academic standing;
- Have completed the courses required for the Ph.D. exam, and
- Be registered at the time the examination is taken.

Exceptions (e.g., if a core course is not offered, but the student has fulfilled all other requirements and has formulated a research program) may be granted by the Supervisory Committee and approved by the Ph.D. Program Director.

The written part of the qualifying examination is offered once each year, during the summer semester, typically in mid-August. All eligible students take this portion of the exam at the same time. The exam committee develops the examination with the assistance of Biostatistics Graduate Faculty members and sets the parameters for administration, such as location, proctoring, admissibility of notes, etc. The committee is established in January of each year by the director of the program.

The exam is a four-hour written test on the material covered in the four core courses together with a take-home portion on data analysis.

Results of the written exam are available in writing to the student within two weeks following the exam dates. All communication of grading and exam results to the student is conducted by the Program Director. Students may not proceed to the oral exam until they have successfully passed the written portion. Students failing the written examination the first time are permitted to take it again the following year. Students are not permitted to take the written exam more than two times.

Oral Examination/Dissertation Proposal

Once the written qualifying exam is successfully completed, the student develops and presents a dissertation proposal (a written proposal and oral presentation) to his/her Supervisory Committee. The topic of the proposal must be an **original research project that will comprise** the student's proposed dissertation research. The written proposal should be distributed along with "key" references to the committee at least 14 days prior to the oral dissertation presentation. This presentation constitutes the oral portion of the qualifying examination.

The Oral Examination will commence with an overview of the student's research proposal. The student will give an oral presentation that should be succinct, yet complete (approximately 30 minutes), and be supported by visual aids (slides/overheads). It should focus on the proposal topic and methodology.

The final assessment by the supervisory committee will be communicated to the student and the director of the Ph.D. program utilizing the following scale:

- Pass –With oral feedback on strengths and weaknesses
- Remedial work needed:
    - Specific needs for additional learning experiences may be identified.
    - Minor rewrite of the proposal or a major rewrite and re-defense of the proposal.
    - Remedial work must be completed within six months from the time of proposal presentation. Re-defense of the proposal cannot occur prior to six months from the time of the original defense.

In addition to prescribed coursework in the Ph.D. program, students are strongly encouraged to collaborate with their mentors and other faculty members on presentations at professional meetings, publications in peer-reviewed journals, and professional service, such as reviewing journal articles, consulting with community agencies, and serving on university committees.

Admission to Candidacy

Successful completions of both written and oral portions of the Qualifying Examination are necessary for Ph.D. candidacy. The doctoral student becomes a doctoral candidate when the following requirements are satisfied:

- The student's is in good academic standing.
- The supervisory committee is satisfied with the academic record of the student and deems the candidate as overall fit for candidacy.
- All required coursework is completed.
- The supervisory committee certifies that the student has made satisfactory progress to be admitted to candidacy.

- The student has a dissertation topic approved by his/her supervisory committee.
- The student has passed both the written and oral portions of the qualifying exam.
- The *Admission to Candidacy* form has the required formal approvals.

The Ph.D. Program requires that the student be admitted to candidacy as soon as the criteria listed above have been met.

The *Admission to Candidacy* form will be provided by the Program Assistant, signed by the supervisory committee, and returned to the Program Assistant for processing.

If the student fails the oral portion of the qualifying exam, he/she may retake it only once and it must be retaken within two semesters. If a student fails the oral portion of the qualifying examination, the Graduate School will be notified. A re-examination may be requested but it must be recommended by the student's supervisory committee and approved by the Graduate School. At least one semester of additional preparation is considered essential before re-examination.

Dissertation

Every candidate for a Biostatistics Ph.D. degree is required to prepare and present a dissertation that shows independent investigation, and is acceptable in form and content to the Supervisory Committee and to the Graduate School. Since all doctoral dissertations will be published, it is necessary that the work be of publishable quality and that it be in a form for publication. A doctoral dissertation must demonstrate the ability to conceive, design, conduct, and interpret independent, original, and creative research. It must describe significant original contributions to the advancement of knowledge and must demonstrate the ability to organize, analyze, and interpret data. The student and supervisory committee are responsible for level of quality and scholarship.

Biostatistics Ph.D. candidates work with their supervisory committees to identify an appropriate format for their dissertations. A dissertation includes an abstract, an introduction, a discussion, and typically at least two additional chapters, each representing approximately one publishable manuscript. Completion of two to three publishable manuscripts is expected before the dissertation defense. One manuscript, on which the student is first author, should already be submitted.

A draft copy of the dissertation must be given to the dissertation committee at least one month prior to the defense. This allows time for any major changes to be made. A final dissertation must be signed by all members of the supervisory committee prior to submission.

Dissertations must be written according to the UF Graduate School requirements. If these requirements are not met, the dissertation will not be accepted. Graduate Council requires the Graduate School Editorial Office, as agents of the Dean of the Graduate School, to review dissertations for acceptable format, and to make recommendations as needed. When first presented to the Graduate School Editorial Office, the dissertation should be near-final (not a draft) and completely formatted. Students should be completely familiar with the format requirements and should work with the Application Support Center (352 392-HELP, option 5) to troubleshoot their files before providing their first submission document to the Editorial Office for review. Here are a few helpful web links:

Format templates:
http://helpdesk.ufl.edu/application-support-center/etd-technical-support/M.S.-word-and-latex-templates/

Checklist:
http://graduateschool.ufl.edu/media/graduate-school/pdf-files/Dissertation-Checklist-201602.pdf

Graduate School Editorial Office:
http://graduateschool.ufl.edu/about-us/offices/editorial/editorial-contacts/

Application Support Center:
http://helpdesk.ufl.edu/application-support-center/

At the time of the first submission, the Editorial Office e-mails the student, using their GatorLink e-mail, when the dissertation has been accepted as a successful first submission and again once it has been reviewed. Alternatively, the Editorial Office may e-mail the student and the Committee Chair upon first submission to indicate that the document cannot be accepted by the Editorial Office for review. In this case, it is the student's responsibility to work with the Application Support Center to trouble-shoot the document and to resubmit it immediately to the Editorial Office. Once reviewed, the student is responsible for retrieving the marked dissertation and review comments from the Editorial Office and for resolving any deficits related to the format requirements, whether noted or not. As soon as they have defended, students satisfy their committee's requirements, making any and all needed changes.

Biostatistics dissertations must be written in English. Dissertations may include journal articles as chapters, if all copyright considerations are addressed appropriately. In such cases, Chapter 1 should be a general introduction, tying everything together as a unified whole. The last chapter should be general conclusions, again tying everything together into a unified whole. Any chapter representing a journal article needs a footnote at the bottom of the first page of the chapter: "Reprinted with permission from . . ." giving the source, just as it appears in the list of references. The dissertation should have only 1 abstract and 1 reference list.

Final Dissertation Defense

After submitting the dissertation and completing all other work prescribed for the degree, the candidate is given a final oral examination by the supervisory committee, on campus. The candidate and the chair or co-chair must be present at the defense, while all other committee members may elect to attend the defense remotely via modern technological advances. The defense should be no more than 6 months before degree award. All forms should be signed at the defense: the candidate and the supervisory committee chair sign the UF Publishing Agreement Form, while the entire supervisory committee signs the ETD Signature Page and the Final Examination Report. If dissertation changes are requested, the supervisory committee chair or his or her designee may hold the ETD Signature Page until all are satisfied with the dissertation. However, this form must be submitted electronically, via GIMS, by the Final Clearance Deadline for the Graduate School Editorial Office, during the term of intended degree award.

The Ph.D. final exam consists of an oral defense of the research results that are described in the dissertation.

At least four (4) faculty members, including all members of the Supervisory Committee, must be present at the final oral portion of the final examination. The four (4) faculty members must be Graduate Faculty members. The dissertation defense is closed to other students and to faculty not on the supervisory committee. Only the official members of the Supervisory Committee may sign the dissertation signature pages.

Assuming the candidate is successful, the Final Dissertation Report shall be signed by the Supervisory Committee. The dissertation, original and copies, are signed by the official members of the Supervisory Committee and by the Dean of the College of PHHP. The signed Final Dissertation Report and the original copy of the dissertation should be returned to the Graduate School after the dissertation has been corrected.

Satisfactory performance on this examination and adherence to all Graduate School regulations outlined above complete the requirements for the degree.

All work for the Ph.D. must be completed within 5 calendar years after the qualifying examination, or this examination must be repeated.

Conference Presentation

It is expected that each graduating Ph.D. student will present his or her dissertation research at a conference or symposium before leaving UF.

Submission of the Dissertation

After changes have been made to the satisfaction of the supervisory committee, and the ETD Signature page is submitted via GIMS, the student may then upload and submit the final pdf of the electronic dissertation, through the Editorial Document Management (EDM) system. The Editorial Office checks to make sure the format is acceptable and that the links work, and, in turn, e-mails the student regarding the status of the ETD (electronic thesis or dissertation). If accepted, no further changes are allowed. If changes are necessitated, those changes must be completed, re-submitted, and accepted by the final clearance deadline in order for the student to complete the Editorial process and achieve final clearance status with the Editorial Office.

Among other requirements, the final dissertation must be accepted (not just submitted) by 5:00 p.m. of the deadline. Most students complete all requirements well in advance. It is the responsibility of the student to ensure they have achieved Final Clearance status by the Final Clearance Deadline for the term in which they intend to graduate. This can be confirmed via GIMS.

All dissertation students must pay a $65 microfilm fee for traditional publication and microfilming fees through UMI/Proquest, even if they elect not to send the dissertation to UMI for publication. This charge will appear as a hold on the student record in ONE.UF only after making first submission to the Graduate School Editorial Office. All dissertation students also must sign a microfilm agreement form. This form is provided to the student at the defense. This form, which is only signed by the student, is delivered, by the student, to the Graduate School Editorial Office by the Final Clearance Deadline for

the intended term of degree award. All Biostatistics Ph.D. students must submit their final dissertations electronically (not on paper).

The student is automatically the copyright holder, by virtue of having written the dissertation. A copyright page should be included immediately after the title page to indicate this. The Editorial Office does not accept copyright registration requests. Registering copyright is not required and does not benefit most students. Any students who wish to register a copyright can do so themselves (http://www.copyright.gov).

Dates for submission of dissertations are published in the Graduate Catalog, online, and in the front of the Graduate Handbook.

For updates and new requirements for dissertations, check the Graduate School website at http://graduateschool.ufl.edu/media/graduate-school/pdf-files/Thesis-Checklist-201602.pdf or check with the director of the Ph.D. Program.

Sequence of Major Events in the Biostatistics Ph.D. Program

The following table outlines the sequence of events for a Ph.D. student entering the program with an M.S. in Biostatistics or Statistics. Such a student is expected to take approximately four years to graduate. Normally, students entering with a BS require an additional year at the beginning of the program.

MAJOR EVENTS	TIMING
Begin required coursework	Year 1
Complete written portion of the qualifying examination	
Continue required coursework.	Year 2
Select supervisory chair and supervisory committee.	
Develop dissertation proposal in collaboration with supervisory committee	
Meet with supervisory committee chair and complete mentoring forms – see Appendix	
With permission of the program director, petition the Graduate School for transfer of master's degree coursework to UF	
Complete advanced coursework	Year 3
Complete oral portion of the qualifying examination (proposal defense).	
Apply for admission to candidacy	
Meet with supervisory committee chair and complete mentoring forms – see Appendix	
Conduct dissertation research	
Review and plan to satisfy all graduation requirements	Year 3 until completed
Resolve all grades less than C	Semester before graduation
Submit degree application to the Student Services Office prior to the deadline	
Comply with graduate school dissertation and final examination deadline dates	Semester of graduation
Register for at least the minimum number of dissertation hours (3 hours in fall and spring, 2 hours in summer	
Defend dissertation (final examination)	

PART III: Masters in Biostatistics

The M.S. in Biostatistics in the Department of Biostatistics requires a minimum of 36 post-baccalaureate credit hours and is offered both on-campus as well as online. The program is designed to facilitate students' development of a strong theoretical foundation in biostatistics, and a broad-based understanding of biostatistical methods. A typical campus student will be enrolled full-time for two years. The time to degree for an online student varies based upon student need and course availability. Upon successful completion of the program, graduates will be awarded an M.S. degree in biostatistics.

The principal goal of the M.S. program is to prepare highly qualified individuals for future Ph.D. training and for careers in biostatistics practice. This training is conducted in the innovative and interdisciplinary public health culture of the College of Public Health and Health Professions and the College of Medicine, and it will produce graduates who will help address the shortage of biostatisticians. We expect our graduates to be highly competitive in three primary settings: academic university-based settings, industry, and federal agencies that involve research and/or public health practice.

M.S. in Biostatistics Curriculum Overview

The following five core courses are required for all M.S. students.

Course	Title	Hours
PHC 6050c	Biostatistical Methods I	3
PHC 6051	Biostatistical Methods II	3
PHC 6092	Introduction to Biostatistical Theory	3
STA 6177	Applied Survival Analysis	3
PHC 6001	Principles of Epidemiology in Public Health	3

The courses Biostatistical Methods I and II and Applied Survival Analysis make up the methods core of the program. These are courses which cover the essentials of statistical methods for different types of data common in health studies. The course Introduction to Biostatistical Theory forms the theoretical part of the core and will provide students with the mathematical foundation necessary to use and understand biostatistical methods. The epidemiology course will provide students with an overview of epidemiology methods used in research studies that address disease patterns in community and clinic-based populations. It will include coverage of distribution and determinants of health-related states or events in specific populations and application to control of health problems.

In addition, each student must complete the three credits from the Public Health Core course, PHC 6937 - Introduction to Public Health.

Students are also required to complete at least five additional biostatistics/statistics courses determined in conjunction with their M.S. Advisor. Special topics elective courses will be taught under the course number PHC 6937.

Student Learning Outcomes

The following specific learning outcomes are tracked annually by the program in order to assure that students are acquiring the skills they need and to identify areas in which the program should be improved.

SLO Type	SLO	Assessment Method	Delivery Mode
Knowledge	1. Communicate the underpinning of biostatistics concepts and methods	1. Student's performance on culminating experience.	Campus*
Skills	2. Apply biostatistical concepts and methods, interpret results, communicate	2. Student's performance on culminating experience.	Campus*
Professional Behavior	3. Display ethical behaviors, cultural sensitivity, teamwork, conduct and communications	3. Student's performance on a consulting report	Campus*

*Learning objectives for online M.S. students will be assessed in an online format

Consulting requirement:

Students must acquire experience in the planning of experiments and establishing a collaborative interaction with an investigator. This requirement is fulfilled by registering for PHC 6063 Biostatistical Consulting (3 credits).

Comparison to M.S. in Statistics

The curriculum covers many of the same topics as the M.S. in Statistics. However, there is different emphasis in the methodology courses, with the core courses covering methodology for categorical data and generalized linear models in Biostatistical Methods II. In addition, there is a 'subject matter' component in the M.S. in Biostatistics, consisting of the Public Health courses as well as a consulting requirement. These are key components in training for Biostatistics, but are not requirements in the M.S. in Statistics.

M.S. Advisor

On entry into the on-campus or online M.S. programs, students will each be assigned an academic advisor who assists with course selection, monitors and assists with academic progress, and supervises the capstone experience during the final semester. Plans of study for online MS students are developed and maintained in consultation with the director of the online MS program.

Unsatisfactory Scholarship

Any graduate student may be denied further registration if progress toward completing the program becomes unsatisfactory to the academic unit, college, or Dean of the Graduate School. Unsatisfactory scholarship is defined as failure to maintain a B average (3.00 truncated) in all work attempted. Graduate students need an overall GPA of 3.00 (truncated) and a 3.00 (truncated) GPA in their major (and in the minor, if a minor is declared) at graduation. Students with less than a 3.00 (truncated) GPA may not hold an assistantship or fellowship.

Graduate students earning less than a 3.0 GPA in a single semester will be given a warning letter by the Director of Graduate Study. Earning less than a 3.0 GPA in the subsequent semester will result in dismissal from the program.

Graduate students are considered to be in good academic standing if the most recent semester GPA is a 3.0 or higher (truncated) and if the overall GPA is 3.0 or higher (truncated).

Capstone Experience

During the final semester students will take an exam in which they need to demonstrate mastery of the program. The student will need to begin preparing for this exam in December if they are graduating in the Spring. Students must be in good academic standing. Students will proceed with one of the following two options:

> (1) Read and critique a paper from the statistical literature, for example, from the journal Statistics in Medicine, and present a summary and critique in a written report form, and in an oral report form of approximately 45 minutes to two committee members, including a committee chair,
>
> (2) Complete a data analysis to answer a research question and write a report summarizing the goals of the project, the data source, the methods used, the results of the analysis, and the conclusion, and then present in an oral report of approximately 45 minutes to two committee members, including a committee chair.

The students' course advisor will serve as the committee chair. There is no length requirement for the written report. If the first option is selected, the report should consist of a summary of the statistical paper, an application of the statistical methodology to actual or simulated data, and a critique of the strengths and weaknesses of the methodology and the paper. During the oral report, students will be questioned by the two committee members during the presentation as well as afterwards. Online students will present the oral report in an online format.

Upon Graduation

All graduates of the program will be expected to be able to: Interpret and apply basic biostatistical methods using state-of-the art software in a way that meets the goals of a collaborating health scientist.

- Support successful collaborations with investigators in new quantitative fields.
- Interpret biostatistical analyses while remaining aware of limitations.
- Compete for positions in three primary settings: academic (either in a Ph.D. program or as an academic research assistant), industry, and federal agencies that involve research and/or public health practice.

PART IV: Important Information

GatorLink

UF requires all students to maintain access to their GatorLink e-mail and the department requires students to read and respond to emails daily. GatorLink is a computer ID and suite of services that allow access to a variety of UF campus computing resources. Every student is required to get a GatorLink ID. Students will be held accountable for information contained in official university mailings to the GatorLink address (which resembles this format: username@ufl.edu). Free services, including a free mailbox and web space, are available. Other campus services require a GatorLink sign on to authenticate your identity. To use GatorLink, you must agree to abide by the policies stated in the Policies for Use of GatorLink and in the UF Acceptable Use Policy. To create your GatorLink, you must go to the website http://GatorLink.ufl.edu. A UF Software CD can be purchased at the Hub and used to set up your computer's Internet connection from home. If you need assistance in setting up your account, see the UF Computing Help Desk in 132 HUB. You will need your UF Gator 1 card.

Biostatistics Student Organization (BSO)

The Department of Biostatistics' student organization consists of Biostatistics graduate students. See http://biostat.ufl.edu/about/student-organization/ for more details. There are four officers: President, Vice President, Secretary/Treasurer, and Social Chair. The group also has a facebook page: UF Biostatistics Student Organization. The BSO sponsors one departmental seminar per year as well as a variety of social activities. It also chooses a representative to attend the month faculty meetings.

Financial Aid

Students in the Ph.D. program are expected to have a source of funding for tuition and stipend (living expenses). Funding may be secured from several sources, including University of Florida graduate assistantships, research sponsorship by a UF faculty member, and teaching assistantships. The Directory of Graduate Study is the most knowledgeable source for ever-changing information about funding opportunities.

Students on University of Florida graduate assistantships are expected to contribute 20 hours/week to the teaching and/or research activities in the department. These duties are discussed with the student and specified in letters of acceptance and award.

Students on Graduate Assistantships and those receiving fellowships are eligible for a tuition waiver.

Current tuition waiver rates per student credit hour are located at http://fa.ufl.edu/ufs/cashiers/feecalc.asp.

Internships and Leaves of Absences

In general, the department is supportive of a student pursuing an internship during the summer provided it is a valuable educational experience and good preparation for a future career. However, in some situations, choosing an internship may put a student's Graduate Assistantship at risk, and there may not be funding available after the internship is completed. Students will need to take a formal

leave of absence prior to the internship and should consult with their Graduate Assistantship supervisor and departmental chair about funding options upon return.

Other requests for a leave of absence, for example due to a family emergency or to medical reasons, are also possible and will be evaluated on a case by case basis.

Florida Residency

Non-resident students on an assistantship are eligible for a waiver of the non-resident tuition fee while on the assistantship. Other on-campus out-of-state students are encouraged to begin the process of establishing Florida as their legal state of residence as soon as they move here. Graduate students eligible for Florida residency are (1) U.S. citizens with non-Florida residency status, indicated by a resident code of "N" on University records, and (2) Resident Aliens with non-Florida residency status, indicated by a resident code of "E" on University records. International students with a resident code of "A" are not eligible to apply for Florida residency.

Recommendations for establishing and declaring Florida as the legal state of residence are outlined below.

- Obtain Request for Change in Residency Status form from Registrar's Office, S222 Criser Hall and review the information and items that will be requested when filing for residency after living in Florida for 11-1/2 to 12 months.
- File a Declaration of Domicile in Florida at the Official Records Office, Room 101 in the Alachua County Administrative Building, located at the corner of University Avenue and Main Street. This document should be filed as soon as you have a local address in Florida. The cost is $11. Keep the receipt for attaching to the "Request for Change in Residency Status" form that you will submit after residing in the state for one year.
- Obtain a Florida Driver's License, car registration, and register to vote in Alachua County (or other Florida county, if appropriate) as soon as you have a local Florida address.
- Keep any receipts that provide proof of the date of your first residence in Florida (e.g., rental agreements, deposits for establishing utilities, etc.).
- Keep any proof of employment in Florida, especially non-UF employment.
- After residing in Florida for 11-1/2 months, file the completed Request for Change in Residency Status form and required documentation with the Office of the University Registrar, S222 Criser Hall.

Please visit the following site for more details on Florida residency for tuition purposes: http://www.admissions.ufl.edu/residency.html. There are cases, based on the residency status of the student's spouse, which may allow for earlier application and approval. In these latter cases, the student should consult the Registrar's Office as soon as possible to determine residency eligibility based on a spouse's residency status.

Academic Integrity

Student Honor Code

In adopting this Honor Code, the students of the University of Florida recognize that academic honesty and integrity are fundamental values of the University community. Students who enroll at the University commit to holding themselves and their peers to the high standard of honor required by the Honor Code. Any individual who becomes aware of a violation of the Honor Code is bound by honor to take corrective action. Student and faculty support are crucial to the success of the Honor Code. The quality of a University of Florida education is dependent upon the community acceptance and enforcement of the Honor Code.

The Honor Code

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

On my honor, I have neither given nor received unauthorized aid in doing this assignment.

All students are required to abide by the Student Honor Code. For more information, please visit: http://www.dso.ufl.edu/judicial/academic.php.

Violations of the Honor Code are taken very seriously at the University of Florida. If your instructor has good reason to believe that you are in violation for cheating, plagiarism, etc., the following procedures will be implemented:

- Your instructor will call Student Conduct and Conflict Resolution to determine if you have a prior academic honesty violation. If you have a prior, your instructor will automatically forward the case and evidence to Student Conduct and Conflict Resolution. If you do not have any priors, you instructor will meet with you.
- Your instructor will schedule a meeting with you and he/she has the option of having their supervisor with them.
- During the meeting your instructor will explain the nature of their suspicions and listen to your account of the incident. If your instructor still believes that you are responsible for an honor code violation, then he/she can recommend a sanction. This sanction can include a grade penalty and an educational seminar.
- If you accept the grade penalty and sanctions, then you are admitting responsibility and will complete the Faculty/Student Resolution Form as appropriate. You have 24 hours to decide whether or not to accept responsibility and the proposed outcome. If you accept responsibility, this does count as your first honor code violation.
- The instructor will send the form with the recommended sanction to the Office for Student Conduct and Conflict Resolution and a conduct file will be created for you.
- A copy of the completed form will be given to you.

- If you choose not to accept responsibility or the sanction, you may choose to have the case heard by the Student Conduct Committee, the Student Health Sciences Conduct Committee if you are a health science student or the Law School Honor Committee if you are a law student.
- If you disagree with the allegation(s) brought forth, you will have an informational meeting with Student Conduct and Conflict Resolution to learn more about a Student Conduct Committee Hearing.
- Your instructor will be called as a witness to the Student Conduct Committee Hearing.
- Follow up letters will be sent to you and the faculty member referencing the outcome.
- You will be given an "I" until the matter is resolved. Once the matter is resolved, your instructor will be directed to submit the appropriate grade.

Misrepresenting data in any form is a very serious violation of the honor code and the professional integrity of our field and will be dealt with accordingly.

Grievance Procedures

The Dean of Students Office *Student Guide* defines the word “grievance” as “dissatisfaction occurring when a student believes that any decision, act, or condition affecting him or her is illegal, unjust, or creates unnecessary hardship. Such grievances may concern, but are not limited to, the following: academic problems (excluding grades, except when there is an allegation of illegal discrimination or where a grade penalty has been imposed without proper authority); mistreatment by any university employee; wrongful assessment of fees, records and registration errors; student employment and discrimination because of race, national origin, sex, marital status, religion, age, or disability.” http://www.dso.ufl.edu/studentguide/studentgrievance.php.

The first line of action is to resolve the conflict with the party directly involved. If the conflict cannot be resolved to the student’s satisfaction, he/she should speak with either his/her supervisory committee chair or the Director of Graduate Study. If the student does not feel comfortable in addressing the issue with either faculty member, he/she should discuss the grievance with the Program Assistant. As stated in the Graduate Handbook, “the right of appeal in writing to the Dean of the Graduate School is the next option if the student still feels the grievance has not been settled. The President of the University shall be the final appeal but only after the prescribed administrative channels and grievance procedures have been exhausted.”

Readmission Requirements

Students, who have left the program prior to graduating and wish to be readmitted, must satisfy the following:

- A minimum GPA of 3.00.
- GRE scores that satisfy the admission requirements of the Ph.D. program in effect at the time of readmission.
- Three letters of recommendation from faculty members on the Biostatistics Ph.D. Graduate faculty.

Readmission is not guaranteed, irrespective of the circumstances that necessitate it.

University of Florida Libraries

The University of Florida libraries form the largest information resources system in Florida. These libraries include the Marston Science Library, Library West, the Health Sciences Library, and several other discipline-oriented branches (e.g., Education Library, Vet Med Reading Room, Herbarium, Mead Library, and Legal Information Center) throughout the campus. The Marston Science Library includes a Map Library with an extensive collection of aerial photographs and remote sensing imagery, particularly for the southeastern United States, Latin America, and Africa. The libraries are also a regional depository for over 600,000 U.S. government documents.

The Health Science Center Library system is one of the largest health science center libraries in the United States. It is located on the first, second, and third floors of the Communicore Building. You must have your Gator One Card available when in the library because some library services are limited to Health Science Center personnel and students. Books placed on reserve for health science courses will be on the second floor of the library. There also is a computer lab on the second floor for conducting literature searches.

Library Hours	
Monday - Thursday	7:30 am – Midnight
Friday	7:30 am – 7:00 pm
Saturday	8:00 am – 5:00 pm
Sunday	10:00 am – Midnight

Holiday schedules are posted on the door of the library and published in the independent student newspaper, *The Florida Alligator*. Xerox machines are located on the second and third floors of the library. For additional information, check the brochures available at the library. The Library web page is http://web.uflib.ufl.edu. You can request an interlibrary loan (ILL) for books and journals the library does not have. You can also request books that are located at the IFAS research centers. There is no fee for this service, but you will need your student ID number. Go to http://illiad.uflib.ufl.edu/illiad/ to access interlibrary loan service. To renew books, choose the institute and use your student ID number. Overdue fines are assessed at the rate of 25 cents per day per item. Fines for course reserve items are 25 cents per hour per item. These fees will automatically be entered into your student record. Unpaid or late library fees could result in a hold on your records, which would prevent you from registering.

Computer Policy

This policy is effective for all students entering the M.S. or Ph.D. in the Biostatistics program.

1. All students must be in compliance with the University of Florida Computer Policy (https://it.ufl.edu/policies/student-computing-requirements/), effective the date of matriculation.
2. All students must have a GatorLink (http://www.gatorlink.ufl.edu/) account.

3. All students must have a computer to allow them to complete all coursework and curriculum requirements within their program. Students in on-campus programs must have a laptop computer. Professional success in today's environment requires high levels of computer expertise. Having a computer throughout your graduate work will ensure that you develop these skills. **Minimum Hardware Requirements -** All students must have a laptop computer that has the following minimum standards:
    - Please refer to the PHHP college minimum hardware policy (http://phhp.ufl.edu/academics/resources/computer-requirements/).
    - Setup will be coordinated through the College of Public Health and Health Professions' Department of Information Technology. Contact them via e-mail at support@phhp.ufl.edu or by phone at (352) 273-6200.
4. All students in the M.S. and Ph.D. programs must have the specific software described below. Easy exchange of information between instructors and students or among students depends on common software. **Software Requirements**
    - Please refer to the PHHP college minimum software policy (http://phhp.ufl.edu/academics/resources/computer-requirements/).
    - For office suite software, Microsoft Office Professional with Access, Excel, Word, and PowerPoint. Note: The Small Business Edition is not sufficient. MS Office can be downloaded through UF: http://www.it.ufl.edu/gatorcloud/free-office-365-downloadsFor many biostatistics courses, students are required to have SAS 9.2 or later and the latest version of R and students may also be required to purchase programs for specific classes.
5. Students are responsible for knowing how to operate their computer and its software. There are many software guides available to help students become more proficient with their software. The University of Florida Information Technology Department offers several training courses at http://www.it-train.ufl.edu/.
6. Students must have access to e-mail and a reliable internet connection with the ability to send and receive attachments such as electronic document or spreadsheet files.
7. Individual courses may require additional specialized software. In such a case, the faculty member is responsible for ensuring that the software requirements are clearly delineated on the course syllabus. Students are then responsible for acquiring access to the specialized software necessary to complete specific course requirements.
8. Campus students are responsible for providing faculty with appropriate hard copies of computer-generated materials if required as part of the course assignment and are responsible for the cost of printing these materials.
9. Students are responsible for any repair necessary to their computers and are expected to complete assignments in a timely manner regardless of the state of repair of their individual computers.
10. It is likely that over the course of a student's program, computer upgrades will be necessary. Students are responsible for upgrades required for curriculum completion.

11. As is the case for non-computer-based assignments, all work completed on the computer must be the student's original work. Students may not receive assistance in completing computer-based assignments unless specifically allowed as part of that assignment. Copying material from others, such as scanning in others' work, copying others' files or disks, and /or downloading materials from other sources, and claiming it as the student's own work is strictly prohibited.
12. **Students are forbidden from sharing material protected under HIPAA without appropriate encryption as required by Health Science Center policy. Peer-to-peer file sharing is not permitted as part of any course assignment.**

Departmental Copiers

Departmental Copiers are to be used for official business and academic purposes only.

PART V: Major Research Centers

Clinical and Translational Science Institute

The University of Florida Clinical and Translational Science Institute (CTSI) was founded in 2008 to improve human health by transforming the university's ability to conduct clinical and translational research. The UF CTSI (https://www.ctsi.ufl.edu/) is supported by multiple NIH grants, most notably, the Clinical and Translational Science Award, and by significant matching funds from the UF Office of Research and the UF College of Medicine. Additional support comes from in-kind efforts of most of the UF colleges.

The CTSI exists to enhance the ability of the University of Florida to develop new therapies, test those therapies in real-world settings, promote therapies found to be of value, and continuously evaluate the effectiveness of therapies. In this context a therapy can be any approach to improving human health – from lifestyle changes to genetic interventions, from drug discovery to public health.

The goals of the CTSI are to:

- Establish clinical research infrastructure, including specialized research staff, informatics support and laboratories that enable studies of the full range of human disorders.
- Fund career development programs that attract talented medical students, physicians and dentists to the challenge of clinical research careers.
- Enhance development programs for underserved states and institutions, focusing on health disparities that negatively impact racial and ethnic minority populations.
- Stimulate basic research to develop versatile new technologies and methods that help researchers to study virtually every human disease.
- Provide access to state-of-the art technologies and instruments that enable both basic biomedical research and clinical investigations of a multitude of health issues, from cancer to infectious diseases.
- Develop and provide access to critical animal models, which offer essential clues to a broad range of human disorders such as Parkinson's disease, multiple sclerosis and AIDS.

- Train veterinarians in translational research in order to respond to deadly human diseases, such SARS, influenza and hepatitis.
- Provide funding to expand, remodel and renovate or alter existing research facilities or construct new research facilities.
- Improve the public understanding of medical research and provide adults and children with information about healthy living and science career opportunities.

Emerging Pathogens Institute

The Emerging Pathogens Institute (EPI) was created by fusing signature disciplines at the University of Florida to create novel opportunities for novel scientific interaction. New and re-emerging diseases threaten Florida's tourism, health and economy, which are particularly vulnerable due to the state's mild climate and diverse agriculture. Weather patterns, commercial plant imports and annual global visitors, all have the potential to unsuspectingly carry pathogens from other countries into our state.

Florida's residents and its two major industries, agriculture and tourism, are threatened by new diseases that enter Florida including West Nile virus and citrus greening. Other diseases not yet in Florida are an even larger threat such as avian flu in humans and hoof and mouth disease in cattle. Florida's unique geography and climate require unique disease prevention and control strategies. Development of such strategies, however, requires a strong research base with a global outlook: pathogens do not respect national borders, and their control requires an awareness of what is happening around the world.

Florida's wide array of temperate, sub-tropical, tropical ecosystems and its diverse agriculture are particularly vulnerable to new pathogens that thrive in our mild climate. Recent hurricanes allow disease agents to appear and reappear from the Caribbean and Latin America simply by being wind-borne. Over 76 million tourists each year and commercial plant imports from across the globe have the potential to unwittingly carry pathogens to our state from other countries.

The Emerging Pathogens Institute was created in 2006 to provide a world-class research environment to facilitate interdisciplinary studies of emergence and control of human, animal, and plant pathogens of concern to Florida, to the nation, and to the world.

The goals of EPI are:

- To understand the genetic changes (and evolutionary drivers) that lead to the emergence of new pathogens;
- To appreciate the complex interaction of environmental and host factors that permit these pathogens to spread within plant, animal, and human populations;
- To use these data to develop and implement interventions to minimize risk of disease transmission;
- To train the next generation of investigators in emerging diseases, within a unique, interdisciplinary setting; and
- To disseminate information about emerging pathogens, and their control, to the people of Florida.

The major current areas of research:

- Vector-Borne Diseases (West Nile, Malaria, Dengue)
- Influenza, other viral pathogens
- Tuberculosis/drug-resistant TB/non-TB mycobacterial disease
- Enteric and Foodborne Illnesses (Cholera, diarrheal disease, Foodborne disease policy and control)
- Plant pathogens
- Antibiotic Resistance/hospital infection control (MRSA)

Institute on Aging

The mission of the Institute on Aging (http://www.aging.ufl.edu/) is to improve the health, independence and quality of life of older adults by means of interdisciplinary teams in the areas of research, education and health care. The Institute on Aging - whose infrastructure and academic environment are provided by the **Department of Aging and Geriatric Research** - is the home of faculty members from diverse disciplines who wish to pursue a career primarily focused on research and education on aging.

The Institute is dedicated to high quality interdisciplinary and translational research and training focused on the health and independence of older adults. It is a continuing goal to be at the forefront of research, education and career development in the area of aging, and make significant contributions to the preservation of independence and prevention and rehabilitation of disabilities affecting senior citizens.

The Institute on Aging is home to the Claude D. Pepper Older Americans Independence Center (OAIC), supported by the National Institute on Aging. The center's research theme, "Sarcopenia, Prevention and Rehabilitation of Disability," is being pursued using an interdisciplinary approach that traverses the entire spectrum of biomedical investigation, including molecular biology, animal studies, clinical research, behavioral sciences, and Biostatistics. This research theme addresses the general goal of the OAIC program, namely, to increase scientific knowledge that will lead to better ways to maintain or restore independence of older persons. The mission of the Pepper center is:

- To assess the risk factors and better understand the biological reasons for physical disability in older adults
- To develop and test effective prevention and rehabilitation therapies
- To educate and train new investigators in research on aging and disability, while developing their leadership qualities and roles

Institute for Child Health Policy

The Institute for Child Health Policy (http://www.ichp.ufl.edu/ichp) brings together a multidisciplinary faculty from the University of Florida to conduct innovative and rigorous science to promote the health of children, adolescents, and young adults. We particularly focus on examining factors that contribute to and developing strategies to address disparities in health and health care outcomes for minority and underserved children and youth. The Department of Health Outcomes and Policy in the College of Medicine serves as an important support infrastructure for the Institute for Child Health Policy and is

the academic home for many of its faculty members from diverse disciplines who wish to pursue a career primarily focused on research and education for child, adolescent, and young adult health.

McKnight Brain Institute

The McKnight Brain Institute of the University of Florida is one of the nation's most comprehensive and technologically advanced centers devoted to discovering how the normal brain operates, and how we can repair the brain following injury or disease.

Today the MBI-UF's collaborative spirit is alive and growing and is represented by over 300 faculty from 51 academic departments and ten colleges and entails research and educational programs in nearly all aspects of basic, clinical and translational neuroscience. Additional collaborators around the world expand this into an international effort. To the best of our knowledge, there is no other academic program anywhere with this breadth and magnitude of multidisciplinary talent focused on the nervous system and the development of new therapeutics and cures for neurological disorders.

With a design theme of beyond the-state-of-the-art, the conceptual mission of the extramurally funded, $60 million, 210,000 graduate student fellow MBI-UF building was that it serve as a catalyst and focal point for widely diverse, but synergistically interacting multidisciplinary research programs. Thus, in addition to an obvious emphasis on high technology, the strategic design of the MBI-UF includes a strong emphasis on multi-user core facilities within a research and clinical setting that includes highly dedicated and gifted basic science and clinical researchers.

UF Genetics Institute

The University of Florida Genetics Institute offers a cohesive and unified systems biology program for the entire campus, devoted to fostering inter-disciplinary collaborations in research, education, patient care, and public health in the field of genetics. Hundreds of faculty members are making significant contributions to new knowledge regarding the genetics of people, animals, insects and plants.

Genetics Institute scientists on a typical day are likely to be searching for solutions to perplexing human health woes, analyzing ways to increase the yield of important crops or probing the structure of a plant that existed millions of years ago.

Because of this vast research landscape, the UF Genetics Institute must transcend traditional academic boundaries. Researchers are based in the College of Medicine and throughout the Health Science Center, the Institute of Food and Agricultural Sciences, the College of Liberal Arts and Sciences, the College of Engineering and beyond, ranging even to the College of Law.

UF Health Cancer Center

The UF Health Cancer Center (UFHCC) is the flagship cancer treatment facility for the state of Florida with branches located in both Gainesville and Jacksonville. One of the leading oncology referral centers in the Southeast, the UFHCC's goal is to eradicate cancer through multidisciplinary research and state-of-the-art clinical therapies.

Common Forms

Biostatistics Departmental Registration Form

Student: _____ UFID:_____-_____

Academic Advisor:_____ Degree Program:_____

Term: ☐ Fall ☐ Spring ☐ Summer Year:_____

Degree Component*	Course Prefix	Course Number	Credits	Instructor	Course Title	Meeting times

* Choose: **BIO** (Biostatistics Core), **PH** (Public Health Core), **ELE** (Biostatistics/Statistics Elective), **CONS** (Consulting Requirement), **CGNT** (Cognate requirement PhD only), or **Other** (Course which does not count toward degree)

_____ _____
Student Signature DATE

_____ _____
Academic Advisor Signature DATE

If taking research credits (PHC6905, PHC7979 or PHC7980) with a faculty member other than your academic advisor, please indicate that here and have them sign below:

Faculty Name:_____ Faculty Signature:_____

_____ _____
Graduate Coordinator Signature DATE

Plans of Study

Student Plan of Study: On-Campus Biostatistics Master of Science – 36 Credits

Graduate Year 1

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6050C	3	Biostatistical Methods I	Core	
PHC 6092	3	Introduction to Biostatistical Theory	Core	
PHC 6001	3	Principles of Epidemiology in Public Health	Core	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6051	3	Biostatistical Methods II	Core	
PHC 6937	3	Introduction to Public Health	PH Core	
TBA - Elective	3		Elective	
Summer Semester Total Hours (Optional): 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	

Graduate Year 2

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
STA 6177	3	Applied Survival Analysis	Core	
TBA - Elective	3		Elective	
TBA - Elective	3		Elective	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6063	3	Biostat Consulting	Core	
TBA - Elective	3		Elective	
TBA - Elective	3		Elective	

Student Name **Student Signature** **UFID**

Academic Advisor Name **Academic Advisor Signature**

Director of Graduate Studies/Graduate Coordinator Signature **Date Turned In**

Please return this form to Academic Assistant at the beginning of graduate study and in the event of any changes made during the course of study.

Student 2-Year Plan of Study: Online Biostatistics Master of Science – 36 Credits

Graduate Year 1

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6050C	3	Biostatistical Methods I	Core	
PHC 6092	3	Introduction to Biostatistical Theory	Core	
PHC 6937	3	Introduction to Public Health	PH Core	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6051	3	Biostatistical Methods II	Core	
PHC 6001	3	Principles of Epidemiology in Public Health	Core	
PHC 6020	3	Clinical Trials Methods	Elective	

Graduate Year 2

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
STA 6177	3	Applied Survival Analysis	Core	
PHC 6937	3	Applied Biostatistical Computing Using SAS	Elective	
PHC 6068	3	Biostatistical Computing	Elective	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6063	3	Biostatistical Consulting	Core	
STA 6178	3	Genetic Data Analysis	Elective	
PHC 6937	3	Frontiers of Biostatistics	Elective	

Student Name **Student Signature** **UFID**

Academic Advisor Name **Academic Advisor Signature**

Director of Graduate Studies/Graduate Coordinator Signature **Date Turned In**

Please return this form to Academic Assistant at the beginning of graduate study and in the event of any changes made during the course of study.

Student 3-Year Plan of Study: Online Biostatistics Master of Science – 36 Credits

Graduate Year 1

Fall Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6050C	3	Biostatistical Methods I	Core	
PHC 6092	3	Introduction to Biostatistical Theory	Core	
Spring Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6051	3	Biostatistical Methods II	Core	
PHC 6001	3	Principles of Epidemiology in Public Health	Core	

Graduate Year 2

Fall Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
STA 6177	3	Applied Survival Analysis	Core	
PHC 6937	3	Applied Biostatistical Computing Using SAS	Elective	
Spring Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6937	3	Frontiers of Biostatistics	Elective	
PHC 6020	3	Clinical Trials Methods	Elective	

Graduate Year 3

Fall Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6937	3	Introduction to Public Health	PH Core	
PHC 6068	3	Biostatistical Computing	Elective	
Spring Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6063	3	Biostatistical Consulting	Core	
STA 6178	3	Genetic Data Analysis	Elective	

Student Name **Student Signature** **UFID**

Academic Advisor Name **Academic Advisor Signature**

Director of Graduate Studies/Graduate Coordinator Signature **Date Turned In**

Please return this form to Academic Assistant at the beginning of graduate study and in the event of any changes made during the course of study.

Student Plan of Study: Biostatistics Ph.D. (entering with M.S.) – 90 Credits

Graduate Year 1

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7090	3	Advanced Biostatistical Methods I	Core	
PHC 6068	3	Biostatistical Computing	Core	
TBA - Elective			Elective	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7091	3	Advanced Biostatistical Methods II	Core	
PHC 7066	3	Large Sample Theory	Core	
TBA - Elective			Elective	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6937	3	Intro to Public Health	PH Core	
PHC 6001	3	Principles of Epidemiology	PH Core	

Graduate Year 2

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
TBA - Elective			Elective	
TBA - Elective			Elective	
TBA - Elective			Elective	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6063	3	Biostat Consulting	Consulting	
PHC 7979	2	Advanced Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
TBA - Elective	3		Elective	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7979	6	Advanced Research	Dissertation Research	

Graduate Year 3

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7979	8	Advanced Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	6	Doctoral Research	Dissertation Research	

Graduate Year 4

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	6	Doctoral Research	Dissertation Research	

Student Name **Student Signature** **UFID**

Academic Advisor Name **Academic Advisor Signature**

Director of Graduate Studies/Graduate Coordinator Signature **Date Turned In**

Please return this form to Academic Assistant at the beginning of graduate study and in the event of any changes made during the course of study.

Student Plan of Study: Biostatistics Ph.D. (entering without M.S.) – 90 Credits

Graduate Year 1

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6050C	3	Biostatistical Methods I	M.S. Core	
PHC 6092	3	Introduction to Biostatistical Theory	M.S. Core	
PHC 6001	3	Principles of Epidemiology in Public Health	M.S. Core	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 6051	3	Biostatistical Methods II	M.S. Core	
PHC 6937	3	Introduction to Public Health	PH Core	
TBA - Elective	3		Elective	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7979	6	Advanced Research	Dissertation Research	

Graduate Year 2

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7090	3	Advanced Biostatistical Methods I	Ph.D. Core	
PHC 6068	3	Biostatistical Computing	Ph.D. Core	
STA 6177	3	Applied Survival Analysis	M.S. Core	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7091	3	Advanced Biostatistical Methods II	Ph.D. Core	
PHC 7066	3	Large Sample Theory	Ph.D. Core	
PHC 6063	3	Biostat Consulting	Consulting	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7979	6	Advanced Research	Dissertation Research	

Graduate Year 3

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
TBA - Elective	3		Elective	
TBA - Elective	3		Elective	
TBA - Elective	3		Elective	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7979	5	Advanced Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
TBA - Elective	3		Elective	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7979	6	Advanced Research	Dissertation Research	

Graduate Year 4

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	6	Doctoral Research	Dissertation Research	

Graduate Year 5

Fall Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Spring Semester Total Hours: 9 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	8	Doctoral Research	Dissertation Research	
PHC 7925	1	Journal Club	Extra Courses	
Summer Semester Total Hours: 6 credits				
Course	**Hrs**	**Title**	**Degree Component**	
PHC 7980	6	Doctoral Research	Dissertation Research	

Student Name **Student Signature** **UFID**

Academic Advisor Name **Academic Advisor Signature**

Director of Graduate Studies/Graduate Coordinator Signature **Date Turned In**

Please return this form to Academic Assistant at the beginning of graduate study and in the event of any changes made during the course of study.

College of Public Health & Health Professions

Individual Development Plan

RESPONSIBILITIES

STUDENTS: Read the following responsibilities in advance of your meeting, and discuss with your advisor any questions you may have. This list is intended to help you understand where you should take ownership over your graduate training and how your advisor can support you with your goals.

STUDENT RESPONSIBILITIES

... take the primary responsibility for the successful completion of my degree.

... meet regularly with my advisor and provide her/him with updates on the progress and results of my activities and experiments.

... work with my research advisor to develop a thesis/dissertation project and select a committee.

... initiate requests for feedback and seek advice from my advisor, committee, and other mentors.

... be knowledgeable of the policies and requirements of my program.

... attend and participate in lab meetings, seminars, and journal clubs.

... keep up with original literature in my field.

... be a good lab citizen, maintaining a safe and clean space and working collegially with everyone.

... maintain a detailed, organized, and accurate lab notebook.

... discuss policies on work hours, sick leave, and vacation with my advisor.

... discuss policies on authorship and attendance at professional meetings with my advisor.

ADVISOR RESPONSIBILITIES

... be committed to your education and training as a future member of the scientific community.

... be committed to helping plan and direct your research project, allowing you to take ownership of your research while setting reasonable goals and establishing a timeline for completion.

... provide and seek regular and honest feedback on an ongoing basis.

... be committed to improving as a mentor.

... be open, encouraging you to come to him/her with concerns and helping to find acceptable solutions to problems as they arise.

... be knowledgeable of, and guide you through, your Home Program's requirements/deadlines.

... advise and assist with your thesis committee selection.

... lead by example and facilitate your training in complementary skills needed to be a successful scientist, such as communication, writing, management, and ethical behavior.

... discuss authorship policies, acknowledge your scientific contributions to the advisors lab, and work with you to publish your work in a timely manner prior to your graduation.

College of Public Health & Health Professions

Individual Development Plan

CAREER PLANNING

CAREER PLANNING

1. What Program requirements do you need to complete, and what is your plan to fulfill them?

2. What are your primary goals in your academic training?

3. What are your career goals?

    a. Where do you envision yourself 1 year post-graduation?

    b. Where do you envision yourself 5 years post-graduation?

    c. What guidance would help you with your development and exploration of career options?

    d. Are there any factors that you are concerned may negatively affect your progress?

    e. What help can your advisor or other faculty/staff provide? Also, indicate if you need help finding professional or personal development resources.

4. What positions are you applying to, and have you been able to get the guidance you need?

5. What features of the research group (if applicable) and your relationships with colleagues are most helpful and supportive to your wellbeing?

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SELF EVALUATION

One of the most important parts of your PhD training is to develop a skill set transferrable beyond graduation. Evaluate your strengths and weaknesses below relative to your own goals, checking the boxes for skills that you would like to target in the coming year (1 being low; 3 being high). Ask your advisor how s/he agrees or disagrees with this assessment. An honest self-assessment and discussion will help you set goals for your training.

RESEARCH SKILLS & SCIENTIFIC THINKING

				Target Skill
Broad-based knowledge of science	1	2	3	☐
Critical reading of scientific literature	1	2	3	☐
Experimental design	1	2	3	☐
Interpretation of data	1	2	3	☐
Statistical analysis	1	2	3	☐
Creativity and innovative thinking	1	2	3	☐

LEADERSHIP/PERSONNEL MANAGEMENT

				Target Skill
Delegating; providing instruction	1	2	3	☐
Providing constructive feedback	1	2	3	☐
Dealing with conflict	1	2	3	☐
Leading and motivating others	1	2	3	☐
Serving as a role model	1	2	3	☐
Setting expectations	1	2	3	☐

WRITING

				Target Skill
For a scientific publication	1	2	3	☐
For a research proposal	1	2	3	☐
For a lay audience	1	2	3	☐
Grammar / structure	1	2	3	☐
Editing your own writing	1	2	3	☐

PROFESSIONALISM/INTERPERSONAL

				Target Skill
Identifying and seeking advice	1	2	3	☐
Upholding commitments / deadlines	1	2	3	☐
Maintaining positive relationships	1	2	3	☐
Approaching difficult conversations	1	2	3	☐
Contributing to a team	1	2	3	☐

ORAL COMMUNICATIONS

				Target Skill
To a specialized audience	1	2	3	☐
To a lay audience	1	2	3	☐
In a classroom	1	2	3	☐
One-on-one	1	2	3	☐
English fluency	1	2	3	☐

PROJECT MANAGEMENT

				Target Skill
Planning projects	1	2	3	☐
Breaking down complex tasks	1	2	3	☐
Time management	1	2	3	☐
Managing data and resources	1	2	3	☐

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MENTORING

Mentoring is a distributive process, allowing you to take advantage of the talents and experiences of many people throughout your training. You may want to consider using all or some of the IDP as an impetus for conversations with each of your mentors, not just your advisor. In the space below, consider the breadth of mentoring you currently receive.

Lead Mentor	
Thesis Committee: as a group (list names)	
Thesis Committee: one-on-one (list names)	
Additional Mentors (list names)	
Collaborators (list names / roles in your research)	

What have you found most beneficial of the mentoring you have received? Is there anything that would improve the mentoring you receive?

What important activities and skills do you bring to a mentoring relationship?

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ACTION PLAN

THIS ACTION PLAN IS TO BE DEVELOPED JOINTLY BY THE GRADUATE STUDENT AND THE MENTOR DURING OR AFTER THE DISCUSSION OF THE STUDENT'S RESPONSE TO IDP ITEMS. Keep it accessible for your yearly IDP meetings and potential monthly check-ins, as determined by the two of you.

1 Communication

What is the best way to set meetings and communicate regularly?

2 Target Skills

What skills did you identify as most important development targets for the coming year?

3 Activities

List any activities in which you and your advisor agree you should participate to achieve your academic objectives in the coming year.

4 Projected Timeline for Major Goals

5 Financial Support

What is the current plan for financial support during the upcoming year? If financial support is not assured, or if additional support is needed, what opportunities exist to apply for or secure this funding (e.g.: scholarships)?

6 Additional Actions

In order to aid your success, are there any additional actions that can be initiated or continued by you? By your advisor?

7 Following-Up

How often do you and your advisor plan to meet?

8 Other