KU

DEPARTMENT OF BIOSTATISTICS & DATA SCIENCE

The University of Kansas Medical Center

GRADUATE PROGRAM STUDENT HANDBOOK

Biostatistics

This handbook can be found online at:
http://www.kumc.edu/school-of-medicine/department-of-biostatistics-and-data-science/graduate-programs.html

University of Kansas Medical Center
Biostatistics & Data Science
Graduate Program

Student Handbook Acknowledgment Form

I, _____, have reviewed and read the **Department of Biostatistics & Data Science Graduate Program Student Handbook**. I understand that as a graduate student at the University of Kansas, I am expected to uphold the program's policies and that failure to do so may result in disciplinary action.

I understand that as the Department of Biostatistics & Data Science programs evolve over time, policies may be amended and/or added. I will be informed of such changes as they take effect, as well as annually at the beginning of the Fall Semester.

I also understand that should I have any problems or questions regarding the policies as they are presented in this handbook, I may direct them to the Biostatistics & Data Science Program Director or Coordinator.

_____(Signature)

_____(Date)

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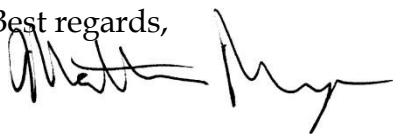2022 - 2023

Letter from the Chair

Dear Student,

On behalf of the faculty and staff, welcome to the Department of Biostatistics & Data Science Graduate Program. We're glad you're here and we're pleased that you have chosen to pursue a career in biostatistics.

The following information is designed to serve as an introduction to the Department of Biostatistics & Data Science Graduate Programs and provide information on resources here at the University of Kansas Medical Center that will serve to assist you in making a smooth transition into student life. Throughout the coming year, we'll be taking an exciting journey together as we enhance our master and doctoral programs. We'll all be doing some hard but rewarding work in the classroom and in the field. Keep in mind, this journey may not be an easy one. We will all be challenged to work in new and different ways, and will be asked to stretch in order to increase our knowledge and skills.

In closing, please remember that the faculty, staff and I are here to assist you in succeeding in this phase of your career. We want you to succeed, both here and wherever your career path leads. Do not hesitate to call on us when you need assistance—that is what we are here for.

Again, welcome to the Department of Biostatistics & Data Science. May you each have a rewarding and productive year ahead.

Best regards,

Matthew S. Mayo, PhD, MBA
Professor and Founding Chair, Department of Biostatistics & Data Science
Associate Director for Shared Resources, The University of Kansas Cancer Center
The University of Kansas Medical Center

KU DEPARTMENT OF BIOSTATISTICS & DATA SCIENCE
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Biostatistics & Data Science
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MS and PhD Programs in Biostatistics

Biostatistics is the exciting and rapidly-growing field of the development and application of statistical methods to research in health-related fields, including medicine, public health, and biology. Biostatisticians play essential roles in designing the studies, analyzing data, disseminating findings, and creating new methods for addressing problems.

As science progresses and new ways to measure and collect information become possible, new statistical techniques must be developed. With the breathtaking pace of science today, the skills of biostatisticians are especially in demand because of new advances in fields such as genetics and neuroimaging, and in the ability to collect, store, and manage vast amounts of data.

Our MS & PhD programs were created to help meet the ever-increasing demand for biostatisticians needed to take leadership roles in careers as researchers and educators in academia, government, and industry. The course work, seminars and collaborative research experience have been designed so that our graduates acquire the knowledge and expertise that allow them to work at the frontier of their field.

Our faculty members are active researchers collaborating and consulting in research projects and initiatives throughout the Medical Center, in addition to pursuit of their own research agendas and participation in curricular instruction. Expertise in the department includes linear, nonlinear, and longitudinal modeling, clinical trial and experimental design, survival analysis, categorical data analysis, robust statistics, psychometric methods, and Bayesian methodology.

MS in Biostatistics

Program Overview

The goal of the MS program is to prepare students to function as a biostatistician or biostatistical consultant. Upon completion of the MS in Biostatistics the student will have an extensive understanding of biostatistical theory and practice and will be proficient in the application of statistical methods to one or more areas in the health sciences.

At completion of the MS program in Biostatistics the graduate should be able to:

- Demonstrate a broad knowledge and understanding of statistical theory and practice as applicable in the health sciences.
- Function as a collaborator on a research team.
- Take a leadership role in the design and implementation of a health science project.
- Assume responsibility for the design and implementation of analyses for health science investigations.
- Assist with the design and implementation of data management systems for large health science studies.
- Prepare reports and publications resulting from health science studies.
- Serve as an advocate for good statistical design in health science investigations.

Degree Requirements

The program consists of 36 credit hours including collaborative research experience, annual evaluations and the successful completion of the Masters General Examination.

Course Plan

The typical course plan consists of 27 credit hours from required Biostatistics core courses which includes 3 credit hours of Collaborative Research Experience. This requirement ensures the completion of a research component through collaborative effort within or external to the Department.

A minimum of 9 credit hours in Elective courses is also required. Elective credits include a minimum of three and a maximum of six credit hours in approved courses from outside the department and a minimum of three and maximum of six credit hours in Biostatistics electives. Biostatistics electives can be chosen from the list of elective classes and the required PhD courses.

Required Biostatistics Core Courses (27 credit hours)

- BIOS 805 Professionalism, Ethics and Leadership in the Statistical Sciences (3 credit hours)
- BIOS 820 SAS Programming I (3 credit hours)
- BIOS 830 Experimental Design (3 credit hours)
- BIOS 835 Categorical Data Analysis (3 credit hours)
- BIOS 840 Linear Regression (3 credit hours)
- BIOS 871 Mathematical Statistics I (3 credit hours)
- BIOS 872 Mathematical Statistics II (3 credit hours)
- BIOS 898 Collaborative Research (3 credit hours)
- BIOS 900 Linear Models (3 credit hours)

Annual Evaluations

Students are evaluated each April by their graduate advisor and the director of the graduate program. These evaluations provide feedback to the student regarding the progress that they are making in a variety of areas: meeting program requirements, classroom performance, and research performance.

Graduate Examination

Masters General Examination: The Masters General Examination is given in the student's last semester in residence, assuming the completion of the following courses: Mathematical Statistics I & II, Statistical Computing, Design and Analysis of Experiments, Regression, and Categorical Data Analysis. The examination has three purposes: to assess the student's strengths and weaknesses; to determine whether the student should be awarded the MS degree; and, if it is a degree goal, to determine whether the student is prepared to continue into the PhD program.

Academic grade standards for MS students

Good academic standing requires maintaining a GPA of at least 3.0 with no letter grade below a C and no more than two BIOS courses with a C letter grade. Students who do not maintain good academic standing will undergo review by the Director of Graduate Education and the Department Chair. If at any time a student receives a letter grade below a C or 3 or more letter grades at a C or below they will be formally removed from the program. If they receive one or two letter grades of a C and their GPA is below 3.0, they will be placed on departmental academic probation and will have their status reviewed at the end of the following semester. If they receive one or two letter grades of a C and their GPA is at or above a 3.0 they will remain in good standing.

GRA/GTA: Good academic standing requires maintaining a GPA of at least 3.0 with no letter grade of C or below in all BIOS courses. Graduate Assistants who do not maintain good academic standing will have their position terminated. At the request of the student, the Director and Department Chair can evaluate the student's performance at the end of the following semester to determine reinstatement of the position. Reinstatement will occur no sooner than one academic semester after position termination.

PhD in Biostatistics

Student Path to the Ph.D. Degree in the Department of Biostatistics & Data Science

The Ph.D. is a research degree and is awarded to students who demonstrate a deep understanding of biostatistical theory and its applications and demonstrate the ability to carry out independent research. As such there is a typical path to succeeding in the degree.

Students begin by taking a series of courses which prepare them for both the qualifying and comprehensive exams. An overall average of B must be maintained. In Biostatistics, the comprehensive exam includes both a written and oral exam component. Students may also be asked to prepare from additional sources/books. You have a maximum of three attempts to pass the comprehensive exam.

Once the exam is passed, students will focus on the research aspect of the degree. Here you will select a supervisor and work closely with him/her to develop a new result in the biostatistical literature. This typically involves a literature review, mathematical modeling and related results, computational development and application to real world data. It is expected that after approximately 12 to 18 months, the student will present an overview of the dissertation in the form of a dissertation proposal to the Department under the guidance of the chosen supervisor.

The final product can then be developed, written and presented in book format (with literature review, conclusion, and formal chapters) OR as two papers, along with an introduction and a conclusion. The papers need not be published to receive the degree. The student will be the primary author on these papers. The dissertation must be reviewed by a 5 member dissertation committee (selected by the student) and successfully defended by the student.

There is a formal 8-year time limit to the Ph.D. program, but extensions can be requested if appropriate.

All faculty in the Department of Biostatistics & Data Science are here to help you in both the coursework and research aspects of the degree.

Program Overview

The goal of the PhD program is to produce biostatisticians who can develop biostatistical methodology that can be utilized to solve problems in public health and the biomedical sciences. In addition, graduates will be prepared to apply biostatistical and epidemiology methodology for the design and analysis of public health and biomedical research investigations. Finally, graduates will be well suited to function as collaborators or team leaders on research projects in the biomedical and public health sciences.

Graduates of the PhD in Biostatistics will have:

- The ability to develop careers in academia, research institutes, government, and industry;

- A broad understanding of current statistical methods and practices in the health sciences;

- A solid theoretical training necessary for the development and study of new statistical methods;
- The ability to assume all responsibilities of a statistician in collaborative health science research; in particular, the graduate will have experience in the design, data management, analysis, and interpretation of a variety of experimental and observational studies;
- Experience in writing reports and giving oral presentations describing health science studies.

Degree Requirements

The typical program consists of 63 credit hours including collaborative research experience, annual evaluations, graduate examinations and the successful completion of a doctoral dissertation. Dissertation research culminates in a final dissertation examination which consists of an oral presentation by the candidate and an examination by the faculty.

Relevant prior graduate work will be taken into consideration in setting up individual programs of study leading to the PhD. The typical course plan consisting of 63 credit hours is designed for students who have not previously completed a MS in Biostatistics. The course plan for a student that has previously completed a MS in Biostatistics will be customized to account for masters level courses already taken and therefore the total credit hours required will vary.

Typical Course Plan

The typical course plan consists of 42 credit hours from required Biostatistics courses, 12 credit hours of electives, and a minimum of 9 credit hours of dissertation research. Elective credits include a minimum of six and a maximum of nine credit hours in approved courses from outside the department and a minimum of three and a maximum of six credit hours in Biostatistics electives.

Required Biostatistics Core Courses (42 credit hours)

- BIOS 805 Professionalism, Ethics, and Leadership in the Statistical Sciences (3 credit hours)
- BIOS 820 SAS Programming I (3 credit hours)
- BIOS 825 Nonparametric Statistics (3 credit hours)
- BIOS 830 Experimental Design (3 credit hours)
- BIOS 835 Categorical Data Analysis (3 credit hours)
- BIOS 840 Linear Regression (3 credit hours)
- BIOS 845 Survival Analysis (3 credit hours)
- BIOS 871 Mathematical Statistics I (3 credit hours)
- BIOS 872 Mathematical Statistics II (3 credit hours)
- BIOS 898 Collaborative Research (3 credit hours)
- BIOS 900 Linear Models (3 credit hours)
- BIOS 902 Bayesian Statistics (3 credit hours)
- BIOS 905 Theory of Statistical Inference (3 credit hours)
- BIOS 999 Doctorial Dissertation (1-6 credit hours)

Annual Evaluations

Students are evaluated each April by their graduate advisor and the director of the graduate program. These evaluations provide feedback to the student regarding the progress that they are making in a variety of areas: meeting program requirements, classroom performance, and research performance.

Graduate Examinations

Qualifying Examination: The Qualifying Examination is given after a student's third full semester in residence, ensuring the completion of the following courses: Mathematical Statistics I & II, Statistical Computing, Design and Analysis of Experiments, Regression, and Categorical Data Analysis. Passing of the Qualifying Examination as a MS requirement applies. The examination has two purposes: to assess the student's strengths and weaknesses and to determine whether the student is prepared to continue into the PhD program.

Written Comprehensive Examination: The Written Comprehensive Examination is given at the end of a student's fifth full semester in residence, when a doctoral aspirant has completed the major portion of the course work at a satisfactory level and met all other program, school, and general requirements prerequisite to the comprehensive examination, including the research skills requirement. The examination has two purposes: to assess the student's strengths and weaknesses and to determine whether the student should continue in the PhD program.

Dissertation Requirement

Dissertation: Students are recognized as candidates for the PhD only after they have passed the Comprehensive Oral Examination and completed all residency and departmental requirements. The candidate must present a dissertation showing

the planning, conduct, and results of original research and scholarly activity. The purpose of the dissertation is to encourage and ensure the development of broad intellectual capabilities as well as to demonstrate an intensive focus on a problem or research area.

Comprehensive Oral Examination: The Comprehensive Oral Examination, also called the *Dissertation Proposal Defense*, is scheduled once a doctoral aspirant has satisfactory completed coursework and met all other program and general requirements. When the completed plan for the dissertation is approved by the dissertation committee chair, the student requests (at least three weeks prior to the date of the examination) the program coordinator to schedule the comprehensive oral examination.

Final Oral Examination: When the completed dissertation has been accepted by the committee in final draft form, and all other degree requirements have been satisfied, the student requests (at least three weeks prior to the date of examination) the program coordinator to schedule the final oral examination.

Academic grade standards for PhD students

Good academic standing requires maintaining a GPA of at least 3.0 with a maximum of one letter grade of C and no BIOS course grades below a C. Students who do not maintain good academic standing will undergo review by the Program Director and the Department Chair. If at any time a student receives a letter grade below a C or 2 or more letter grades at a C or below they will be formally removed from the program. If they receive a letter grade of C and their GPA is below a 3.0, they will be placed on departmental academic probation and have their status reviewed at the end of the following semester. If they receive a letter grade of C in a course and their GPA is at or above a 3.0, they will remain in good standing.

GRA/GTA: Good academic standing requires maintaining a GPA of at least 3.0 with no BIOS courses with a letter grade of C or below. Graduate Assistants who do not maintain good academic standing will have their position terminated. At the request of the student, the Program Director and Department Chair can evaluate the student's performance at the end of the following semester to determine reinstatement of the position. Reinstatement will occur no sooner than one academic semester after position termination.

PhD Degree Process

Required Coursework → PhD Qualifying Exam → Form Comprehensive Committee → PhD Written Comprehensive Exam

University Requirements:
- GPA ≥ 3.0
- ≥ 2 full-time semesters
- Research Skills & Responsible Scholarship

Form Dissertation Committee → PhD Oral Comprehensive Exam

University Requirements: ≥ 5 months
18 hours enrollment at 6 F/Sp and 3 Su → Oral Dissertation Defense

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Course Catalog

You can find the list of all courses within the [Department of Biostatistics & Data Science](#).

Policies and Procedures

All policies and procedures that govern KUMC can be found at:
https://www.kumc.edu/academic- [and-student-affairs/departments/graduate-studies/policies-and-regulations.html](https://www.kumc.edu/academic-and-student-affairs/departments/graduate-studies/policies-and-regulations.html)

Educational Opportunities

Journal Club

The Department of Biostatistics & Data Science hosts a Journal Club meeting on the first Friday of the month from 12:00 pm – 1:00 pm. All students will be included in the invitation email. Locations change monthly, so please check email invitation.

For additional information regarding this club, please contact Ms. Madison Johnson at mjohnson89@kumc.edu.

Seminar Series

The Department of Biostatistics & Data Science Faculty host seminars every third Friday of the month from 11:00am – 12:00pm held virtually for the 2022-2023 academic calendar year. All students will be included in the invitations emails, and are encouraged to attend the seminars online via teleconference.

For additional information regarding the Seminars, please contact Paige Rice at price3@kumc.edu.

Graduate Professional Development Seminar

The Graduate Professional Development Seminar is a career prep and development seminar series targeting our graduate students. The goal is to help introduce our students to industry, government, and academic statisticians to help t hem better decide how to identify and prepare for jobs. The seminar is currently held once a month, for one hour.

For additional information regarding this seminar, please contact Mandy Rametta at mrametta@kumc.edu.

FACTS Working Group

To foster collaboration and methodological development in novel trial designs, the BISR instituted the Fixed and Adaptive Clinical Trial Simulator Working Group in 2018. This groups meets biweekly and is comprised of faculty, staff, and trainees with an interest in the application and development of methods/tools for novel clinical trial design and execution. For additional information regarding FACTS, please contact either Elena Shergina at (913) 588-2774 or e696s865@kumc.edu or Byron Gajewski at (913) 588-1603 or bgajewski@kumc.edu.

Statistical 'Omics Working Group (SWOG)

The Statistical 'Omics Working Group (SWOG) is comprised of faculty, staff, post-docs, and students with a general interest in the development and application of statistical/bioinformatics methods to 'omics data types (e.g., genomics, transcriptomics, epigenomics, etc.). The purpose of SWOG is multifold: it provides an encouraging and safe environment to share and exchange ideas about novel statistical/bioinformatics methods and novel applications of existing methods, learn about upcoming conferences and other events of interest, receive feedback on one's collaborative/dissertation research from peers and colleagues, and receive advice on manuscript writing, peer-reviewing, and oral communication skills. The SWOG meets weekly on Fridays from 9:30a-11:00a and is comprised of 12-18 active members.

ASCEND

Modeled after the NIH BEST model of training, ASCEND (Achieving Successful Careers, Exploring New Directions) provides graduate students and postdoctoral trainees the opportunity to explore diverse career options and build the skills to successfully launch the next phase of their careers. Visit the ASCEND website to learn more about the program, access an archive of ASCEND workshops, and find upcoming events.

Student Resources

Biostatistics & Data Science Student Computing Lab

The Biostatistics & Data Science Department offers student a computing lab located in Robinson G022 and through online appointment. In the lab there are computer terminals that students are allowed to utilize for their studies. The computers have programs installed on them such as SAS, R, as well as others needed for course work. Students are allowed to use the services of this lab as long as they respect the rules of the lab. Rules of the lab include:

- No food or drink near the computers

- Always sign in and out on the Computing Lab Log
- Always turn off the computers when you are finished working

Student Compliance Training

All KUMC students are required to complete annual compliance training during the June 1 through September 30 student training window. Failure to complete the training will result in a hold being placed on your student account that will prevent future enrollment until the training is completed.

The training is completed on-line at [KUMC Saba Training](). Once you have logged into my , the following modules will be populated that are required for students:

- **Computer Security Training**
- **Harassment Tutorial (full or refresher student version)**
- **HIPPA Training (student or employee version)**
- **University/UKP Safety Training (student version)**
- *Special for 2020:* **COVID Returning to Campus Safely**

Once you have logged in and completed your training, please send an email to the Academic Program Specialist, Mandy Rametta at mrametta@kumc.edu verifying that you have completed the training and the date that you have done so. This is a mandatory requirement for the Biostatistics & Data Science Department at KUMC. **Students who fail to complete training by the specified deadline will lose access to all KUMC resources (e.g., email, Blackboard, myKUMC).**

Enroll and Pay

Enroll and Pay is the student information system used at KUMC for:

- Admissions
- Enrollment
- Bills and Payments
- Financial Aid
- Curriculum Management
- Class Rosters
- Grading
- Academic Records
- Emergency contacts

Students may log on to Enroll and Pay at: https://sa.ku.edu using their KUMC Network/GroupWise username and password.

Please go to http://sis.ku.edu for student tutorials on how to sign-in and navigate the system, how to enroll, how to view course schedules and course grades, online payments, navigating financial aid, and how to update personal and contact information. All BIOS courses require permission to enroll. Students should work with their academic advisors to receive permission codes.

KUMC Blackboard

Blackboard is a course management tool that allows instructors to create web-based courses. Students must have a valid KUMC username and password to access the courses created in Blackboard.

To login to Blackboard
1. Go to https://bb.kumc.edu/
2. Students will login with their KUMC Outlook username and password. Faculty and staff will login with their network username and password. You will have one Blackboard account for all Blackboard courses while at KUMC. If you have difficulty logging in, contact the Help Desk at 913-588-7995.
3. Once in Blackboard you will see a list of all the courses that you are enrolled in. Note: courses will appear about a week before the semester begins.
4. Click on the course title (under Courses) to go to a course home page.

Blackboard E-Learning Guide: http://www.kumc.edu/information-resources/organizational-units/teaching-and-learning-technologies/blackboard-course-management.html

Student Services

The KUMC Division of Student Services contributes to the academic mission of the university with quality student-centered programming and services that support the emotional, intellectual, personal and professional growth of our individual students. The primary goal of the division is to provide essential support services that assist students as they pursue their academic goals, and coordinate student services so as to insure that they are efficient, accessible and "user-friendly."

For more information on the Student Service Departments, please refer to:
www.kumc.edu/student-services.html.

Student Service Departments include:
- **Career Services**
- **Counseling & Education Support Services**
- **Kirmayer Fitness Center**
- **Enrollment Services**
- **Student Financial Aid**
- **Office of Student Life**
- **Student Health Insurance**
- **Student Health Services**
- **Academic Accommodations**

Graduate Student Professional Development Award

Professional Development Award

Professional Development Awards are given four times a year through a competitive application process. Graduate students who are accepted to present at a regional or national scientific meeting are eligible to apply. These awards may be a maximum of $550. Deadline: The first working day of the following months: January, April, July and October.
Completed applications should be submitted to the Office of Graduate Studies, 5015 Wescoe, Mail Stop 1040. Questions, contact the Office of Graduate Studies at (913) 588-1238 or by email at gradstudiesoffice@kumc.edu.

SGC Travel Awards

Graduate students may apply for travel awards for professional development made available through the KUMC Student Governing Council (SGC). Application for this award is managed by SGC, all questions regarding this award should be directed to Ryan Gove at rgove@kumc.edu.

Equal Opportunity and Nondiscrimination

The Biostatistics & Data Science program and the University of Kansas Medical Center are committed to ensuring equal opportunity. Detailed information about equal opportunity and non-discrimination policies are outline on the Institutional Opportunity & Access website at: http://ioa.ku.edu/. Students are asked to complete a Request for Service Form at the beginning of the Biostatistics MS and PhD program. If any student identifies the need for services they are asked to contact:

- Equal Opportunity/ Disability Services in 1040 Wescoe, 913.588.1206 (voice) / 913.588.7963 (TDD), or
- Student Counseling and Educational Support Services in G116 Student Center, 913-588-6580.

The University of Kansas Medical Center is committed to ensuring equal opportunity. Its equal opportunity/nondiscrimination policy is designed to ensure that employees, students, residents, faculty and supervisors understand their rights and responsibilities. The University's discrimination complaint procedure is designed to ensure that concerns are handled in a timely and responsive manner. For inquiries regarding the University's EO/nondiscrimination policies, contact the EOO Office , 1054 Wescoe, 913-588-1206 (V) or 913-588-7963 (TDD).

- What is Equal Opportunity?
- Who is responsible for Equal Opportunity?

What is Equal Opportunity?

Equal Opportunity is a legal right of all persons to be accorded full and equal consideration on the basis of merit regardless of protected class with regard to:

- all terms and conditions of employment (e.g., hiring, promotion, layoff, demotion, termination, access to training)
- access to educational programs, services and activities
- admissions
- academic evaluation and advancement
- financial aid
- athletics

Who is responsible for ensuring equal opportunity?

The policies and procedures adopted by the University of Kansas Medical Center in December 1998 reflect the following philosophy toward equal opportunity at the University of Kansas Medical Center:

- Deans, Vice Chancellors, departmental directors and chairs, and their designees are partners with the Equal Opportunity Office in ensuring equal opportunity for students, residents, employees and faculty.
- The University is proactive rather than reactive regarding issues and situations that may compromise its public image, conflict with its commitment to valuing diversity, or create legal liability.
- University practices governing recruitment and selection, promotion, termination, and disability accommodation are written, readily available, and monitored to ensure compliance.
- Response protocols are consistent and timely, ensure due process for all parties, and involve appropriate University officials at the appropriate stage.

In practical terms, the following University officials are responsible for ensuring equal opportunity and preventing discrimination.

Deans, Vice Chancellors, Directors, Chairs and Designees

- Understand and adhere to University policies
- Ensure that employees, including faculty, students and residents understand their equal opportunity/ nondiscrimination rights and responsibilities
- Ensure that academic and employment decisions are based on legitimate, nondiscriminatory criteria
- Provide reasonable accommodation for religious beliefs and the known disabilities of qualified individuals in consultation with the Equal Opportunity/Disability Specialist
- Monitor the environment in which students and employees learn and work
- Actively address behaviors and actions which may create a hostile work or learning environment, in consultation with the EOO
- Respond to complaints of discrimination, including sexual harassment, in consultation with the EOO
- Ensure the success of AA programs

Equal Opportunity Office

- Establish policies, procedures and notification statements which conform to legal/judicial mandates
- Disseminate policies and procedures
- Educate campus community about EO/nondiscrimination rights and responsibilities
- Provide advice and consultation to university officials
- Coordinate and oversee receipt, analysis and provision of disability accommodations
- Work with department heads and supervisors to respond at the earliest and most informal level regarding situations or behaviors that may involve discrimination

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- Investigate discrimination complaints
- Monitor recruitment and selection, personnel actions and terms/conditions of employment
- Receive applicant data and conduct statistical analyses for federal reporting
- Review job qualifications to ensure nondiscrimination
- Ensure that accurate workforce profiles are maintained and analyzed
- Prepare and disseminate the annual AA Plan.

Grievance Procedures

If a student is not satisfied with any decision by the university involving academic adjustments or effective communication, or otherwise believes she or he has been discriminated against on the basis of disability, the student may contact the designated coordinator and/or file a complaint of discrimination in accordance with the university's anti-discrimination grievance procedure.

The student may contact the Vice Chancellor of Student Services who will consult with KU Medical Center's legal affairs personnel prior to or after a discrimination complaint is filed to attempt to resolve the complaint informally. However, informal or voluntary resolution attempts after a complaint is filed will not delay the investigation of the complaint pursuant to the grievance procedure set forth in the Discrimination Complaint Resolution Process.

Dropping an Individual Course / Canceling or Withdrawing From all of Your Classes

You can drop individual classes online via Enroll and Pay through the withdrawal deadline. Login to Enroll and Pay, navigate to the Student Center, select Drop a Class, and follow the instructions. **Students should consult with their academic advisors, Program Director, Graduate Studies, and Financial Aid prior to dropping or withdrawing from a class.**

- Dropping all of your classes before the first day of classes is considered a **Cancellation.**
- If you want to cancel a future semester, this is considered a **Cancellation from Future Semester** and must be done before the first day of classes.
- Dropping all of your classes after the semester has started is considered a **Withdrawal**.

For important dates and further instructions, see the following website: http://www.kumc.edu/student-services/enrollment-services/current-students/dropping-and-withdrawing-from-classes.html.

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Leave of Absence

Leave of Absence (LOA) from the University

Students may request a **leave of absence from the university** if they are not intending on being continuously enrolled. A LOA must be approved by your academic department and Graduate Studies/International Program (if applicable). Student network and email accounts remain active during the LOA period. While on LOA, KUMC reports the student to lenders as being on a LOA and may be eligible for a loan deferment. Students are advised to consult with their lenders about their eligibility for a loan deferment while on LOA.

Policies Regarding Leave of Absences from the University

- In order to qualify for a LOA, a student must enroll in the following semester. Failure to enroll will result in your withdrawal date being reported as the last date that you were officially enrolled.
    - For undergraduate/graduate students, a student on a fall LOA must enroll in the following spring semester and a spring LOA must enroll in the following summer semester.
    - For MD students, a student on a fall LOA must enroll in the following spring semester and a spring LOA must enroll in the following fall semester.
- KUMC LOA periods are the following:
    - Fall semester: August 1-December 31
    - Spring semester: January 1-May 31
- Students cannot withdraw from a semester and then be placed on a LOA for the following semester.
- Students cannot request a LOA for the summer semester
- Students can only be on a LOA once during a 12 month period
- Students can only receive a maximum of 2 LOAs per academic program
- If a student does not enroll for the semester after the LOA expires, they have to submit a reactivation form and pay the $50 reactivation fee in order to enroll.

To request a leave of absence, go to the Office of Graduate Studies website to navigate to the **Leave of Absence Forms** tab. Fill out the form as requested, and you must obtain all required signatures on the form. Once the form is filled out, it will be turned into the KUMC Office of Graduate Studies for processing. If approved, you will receive an email to your KUMC email address.

If you don't enroll for the fall or spring semester after your LOA, your program will be discontinued and you must submit a reactiveation form and pay the $50 reactivation fee in order to re-enroll. The form is located here: http://www.kumc.edu/reactivationform/

IMPORTANT! A LOA from the university is different than a LOA from the student's academic program. If a student is not going to enroll for more than a semester, they also need to have a LOA from their program approved by their academic department and Graduate Studies (if applicable) to ensure re-entry in the program. A LOA from a program may be longer than a semester. Once the LOA from the university has expired, the student is reported as not being enrolled at KUMC and is subject to their lender's policies about loan repayments. For more information about a LOA from the academic program, please contact your advisor or Graduate Studies for graduate students.

Leave of Absence – Graduate Students

The Registrar's Office has implemented an on-line Leave of Absence (LOA) request form. Please see their website for details:
http://www.kumc.edu/student-services/enrollment-services/current-students/dropping-and-withdrawing-from-classes.html#loa

Federal law has limits regarding the length and number of LOA requests so be sure to read the information posted on the Registrar's website. A LOA requested through the Registrar will be routed through the department and Graduate Studies for approval before it will be processed. Please note, if you do not enroll for the fall or spring semester after receiving an approved LOA from the Registrar, you will be discontinued in the student system and you must submit a reactivation form and pay the $50 reactivation fee in order to re-enroll.

There may be situations in which a graduate student needs a longer leave of absence than is available through the Registrar's Office process which is used to report current enrollment status (e.g. either enrolled or LOA). The Office of Graduate Studies may grant a leave of absence from an academic program for up to one year, with the possibility of extension. The student must make a written request for a leave of absence from their academic program and submit to their department. The department forwards the student's request along with the department's recommendation to the Dean of Graduate Studies for approval. If approved, the time on leave from the academic program will not be counted toward the maximum time granted to complete a degree (PhD - 8 years, master's 7 years).

The Office of Graduate Studies Website:
http://catalog.ku.edu/graduate-studies/kumc/

The KUMC Registrar's Website:
http://www.kumc.edu/school-of-medicine/osa/policies-procedures-and-manuals/leave-of-absence.html

KUMC Office of International Programs

In an interdependent world, International Programs believes that it is essential for faculty, students, and staff to have the opportunity to become personally and intellectually familiar with the people, ideas, and customs of other nations. Such interaction not only promotes a universal perspective and intellectual growth, but also contributes to the cultural and economic well-being of the university, the state, and the nation.

Activities & Programs

The Office of International Programs offers a variety of activities and programs designed to provide informative and meaningful answers for a wide range of international student concerns, as well as provide a medium for open, respectful interaction in an informal and positive setting. Events offered through the Office of International Programs are coordinated by the ESL & Cultural Programs Coordinator. Please check the KUMC events calendar for upcoming activities and where they will be held.

The KU Lawrence Cultural Events Calendar also offers information that may interest international students on the Kansas City campus. Please note that non-activity related guidelines and programs listed on this site are specific to KU Lawrence and may not apply to international students on the Kansas City campus.

Immigration Requirements

All individuals who are not citizens or lawful permanent residents of the U.S. are required to check in with the KUMC Office of International Programs immediately upon arriving at the University of Kansas Medical Center, **before** commencing any program of work, study, or research. Such individuals must submit passport, visa (if applicable), Form I-94, and other relevant documents as follows:

- **F-1 & F-2:** I-20 processed at port of entry or for transfer, as applicable
- **J-1 & J-2:** DS2019 processed at port of entry or for transfer, as applicable

In addition, all J-1 and J-2 exchange visitors are required to submit proof of insurance as mandated by the U.S. State Department for self and all dependents present in the U.S., effective from the start date of the program until the end date, or for one year, whichever is shorter. Other visa classifications may need to submit documents in addition to those stated above, depending on circumstances.

Citizenship and Immigration Services requires all non-citizens to provide their current

residential address (neither a work address nor a P.O. Box) and **home** telephone number (not a work or pager number).

English Language Proficiency

All international applicants for study at the University of Kansas Medical Center whose native language is not English must demonstrate an established level of English language proficiency through either the **TOEFL** (Test of English as a Foreign Language), the academic format of the **IELTS** (International English Language Testing System), or the **E3PT** (English3 Proficiency Test). The test must have been taken within two years of the first class at KU Medical Center.

International applicants who are citizens of the following countries, or who have earned Bachelor's or higher degrees from English-speaking accredited institutions in them do not have to submit TOEFL scores: United States, Great Britain, Ireland, Australia, New Zealand, or the English-speaking provinces of Canada.

Applicants from India and other recent British colonies **do** need to submit TOEFL scores even if English is their primary language. The TOEFL requirement may be waived on a case by case basis for students with proper documentation who have earned a degree from a foreign institution where the language of instruction was English. Academic departments have the right to establish more stringent requirements, if necessary.

Test scores must be **original** forms sent directly from the administering agency to KUMC. Photocopies will not be accepted. **ETS school code for KUMC: 6895**

EP3	TOEFL paper-delivered test	TOEFL iBT or TOEFL iBT Special Home Edition	IELTS
68-72, Overall 62-67, minimum on writing	60 composite (18 minimum subscore) this is higher than graduate?? Just use our grad score	79 composite (18 minimum subscore)	6.5 (6.0 minimum subscore)

Although the Internet-based TOEFL includes a speaking component, a minimum score on the Speaking section is not required for many programs in the School of Allied Health. Provisional admission may be considered for applicants whose scores do not meet the requirements for regular admission. For scores from the computer-based or

paper-based TOEFL, see the KUMC Office of International Programs.

Admitted students not meeting the required minimum scores for regular admission may be required to test upon arrival at KUMC and may be required to enroll in one or more English courses at KU.

Foreign Education Credentials Evaluation

Transcripts and grades earned outside the U.S. must be evaluated, even if classes were taught in English and the transcript is written in English. For examples, transcripts from India and other British colonies must be evaluated.

An official evaluation (no photocopies) from a NACES organization is required. It should include:

- Course-by-course evaluation
- Grade evaluation
- Degree earned (bachelor's, master's, doctorate, etc.)

Academic Honor Code

The Department of Biostatistics & Data Science expects all students of the University of Kansas taking courses to act in **academic matters** with the utmost honesty and integrity. A student violates the Honor Code if the student engages in **dishonorable conduct** in connection with an academic matter.

Academic matter means an activity that may affect a grade or in any way contribute toward the satisfaction of the requirements for the course without reference to the focus of such activity. Academic matters include, but are not limited to, the following activities:

1. An examination.
2. A homework assignment or other activity to be done outside the class.
3. Postings on the discussion board.
4. Work that is in whole or partial satisfaction of requirements for course credit.
5. An activity for which course credit is given.

Dishonorable conduct means an act of academic dishonesty. The term dishonorable conduct includes, but is not limited to, the following acts:

1. Offering for course credit as one's own work, in whole or in part, the work of another.
2. Plagiarism; that is, incorporating into one's work offered for course credit passages taken either word for word or in substance from a work of another, unless the student credits the original author and identifies the original author's work with quotation marks, footnotes, or another appropriate written explanation.
3. Offering for course credit one's own work, but work that one has previously offered for course credit in another course, unless one secures instructor permission to do so.
4. Offering for course credit work prepared in collaboration with another, unless the student secures the instructor's permission in advance of submission.
5. Using, during an examination period, material not authorized by the instructor.
6. Giving, receiving, or obtaining information pertaining to an examination during an examination period, unless such action is authorized by the instructor.
7. Divulging the contents of examination designated by the instructor as an examination not to be removed from the examination room or discussed.
8. Failing to follow the instructions of an instructor in completing an assignment or examination, if one knows or should reasonably know that one would, by such conduct, obtain an unfair academic advantage.
9. Witnessing conduct which one knows or should reasonably know is dishonorable and failing to report it as required by this Honor Code.

Technical Standards

Technical Standards and Requirements MS and PhD in Biostatistics
Department of Biostatistics & Data Science

Because the MS and PhD in Biostatistics degrees signify that the holder is prepared for entry into the practice of biostatistics research, it follows that graduates must have the knowledge and skills necessary to function in a broad range of academic and research situations. The **Technical Standards** include those physical, cognitive, and behavioral standards that are required for the satisfactory completion of all aspects of the curriculum and the development of professional attributes required by all students at graduation. Therefore, the following abilities and expectations must be met by all students **with or without accommodations** admitted to the MS and PhD programs:

1. **Observation.** A student must be able to observe and evaluate class demonstrations and field experiences relevant to the field of statistics. He or she must be able to read and comprehend text, numbers, tables and graphs, both in print and displayed electronically. Observation necessitates the functional use of the senses of vision and hearing.

2. **Communication.** A student must be able to communicate effectively and efficiently in English in oral, written, and electronic form with other students, faculty, staff, researchers, and the public. Effective communication includes: the ability to understand assigned readings, lectures, and technical and professional materials; the ability to analyze information; the ability to present results of such analyses verbally and in writing; the ability to independently prepare papers and presentations; and the ability to follow verbal and written instructions.   Use of computers and other technology is imperative to this communication.

3. **Motor.** A student must have sufficient motor function to attend classes, prepare assignments, use electronic media, deliver lectures and make public presentations. Class requirements may also include field work in a variety of collaborative environments.

4. **Intellectual, conceptual, integrative and quantitative abilities.** A student must possess the ability to understand and read and understand documents written in English, to understand and work with measurements and calculations, and to engage in reasoning, analysis, synthesis and critical thinking. A student must be able to exercise sufficient judgment to recognize and correct performance deviations, and be able to draw on all the above mentioned abilities to be an effective problem solver, researcher, and communicator.

5. **Behavioral and social attributes.** A student must have the emotional health required for the full use of his or her intellectual ability. A student must be able to exercise sound judgment, and to act ethically and with integrity. He or she must develop mature, sensitive, and effective professional relationships with others. A student must be self-motivated, reliable and responsible to complete assigned tasks in a timely manner with no supervision.   Students must be able to give attention to detail and have the flexibility to function in a research setting, including adapting to changes in time, place and structure of academic and research settings. The student must have the ability to work with diverse groups.

NOTE: Reasonable accommodations will be considered and may be made to qualified students who disclose a disability, so long as such accommodation does not significantly alter the essential requirements of the curriculum and the training program, or significantly affect the safety of patient care. Students who disclose that they have a disability are considered for the program if they are otherwise qualified. Qualified students with a disability who wish to request accommodations should provide the appropriate documentation of disability and submit a request for accommodation to the University's Office for Academic Accommodations.

Shared Drive Usage Policy

Department of Biostatistics & Data Science Shared Drive Usage Policy

When working with your mentor on your GRA assignment,

Things that can help a student efficiently complete their project's/tasks:

- Always store all the information and project related documents under the shared drive (S drive or P drive).

- During your first meeting with your mentor make sure a folder has been created and access is provisioned appropriately. For questions related to access, one could contact the Director of Research Information Technology at dmudranthakam@kumc.edu

- For any reason, if you are working on data set and hasn't been assigned with a Department of Biostatistics & Data Science computer please check with either your mentor or Director of Research Information Technology.

- If you have any question or unsure as to how to handle the data or storage related issue please check with your mentor and/or Director of Research Information Technology at dmudranthakam@kumc.edu .

you should **never**:

- Store documents containing sensitive information on laptop or notebook computers unless the computer is certified, and the information is encrypted. Call Information Security at ext. 8-3333 for information about personal computer certification and encrypting data.

- Store documents containing sensitive information on mobile devices such as iPhones or Personal Data Assistants (PDAs, Palms, PocketPCs, Windows CE devices, BlackBerries) unless such storage is approved by your department and the PDA is password-protected.

- Store sensitive information on small portable storage devices such as floppy drives, zip disks, flash memory drives (keychain drives, flash drives, USB memory keys), CDs, or DVDs unless the information is encrypted, and the device has been approved by Information Security.

- Store sensitive University information on a home computer or any other computer not owned by the University.

- Provide an outside entity with any type of sensitive information without the informed consent of your department chair. Be aggressive in seeking clarification and confirmation that including sensitive information is essential. While this may seem obvious in the case of (for example) patient information, it applies equally to a spreadsheet containing employee names and dates of birth or SSNs.
- Send any form of sensitive information off-campus via email using Outlook or any other email system except KUMC's Secure Email System. For information on the Secure Email System, please visit the secure email website.
- Post any form of sensitive information on a web server.
- Transmit files containing sensitive information outside of the KUMC network in a manner that does not utilize encryption to protect the communication (e.g., the SecureFiles system, SSL, VPN, etc).
- Store sensitive information in third-party online application services, unless a University contract with that vendor is in place which protects sensitive information.
- Store documents containing sensitive information on third-party online storage services, unless a University contract with that vendor is in place which protects sensitive information.