STATISTICS: BIOSTATISTICS, PH.D.

This is a named option in the Statistics Ph.D. (http://guide.wisc.edu/graduate/statistics/statistics-phd/#text)

ADMISSIONS

Please consult the table below for key information about this degree program's admissions requirements. The program may have more detailed admissions requirements, which can be found below the table or on the program's website.

Graduate admissions is a two-step process between academic programs and the Graduate School. ***Applicants must meet*** the minimum requirements ***(***https://grad.wisc.edu/apply/requirements/***) of the Graduate School as well as the program(s).*** Once you have researched the graduate program(s) you are interested in, apply online (https://grad.wisc.edu/apply/).

Requirements	Detail
Fall Deadline	December 1
Spring Deadline	The program does not admit in the spring.
Summer Deadline	The program does not admit in the summer.
GRE (Graduate Record Examinations)	Required. *
English Proficiency Test	Every applicant whose native language is not English or whose undergraduate instruction was not in English must provide an English proficiency test score and meet the Graduate School minimum requirements (https://grad.wisc.edu/apply/requirements/#english-proficiency).
Other Test(s) (e.g., GMAT, MCAT)	n/a
Letters of Recommendation Required	3

*

Due to COVID-19, there have been challenges for students attempting to take the GRE. Currently, the GRE requirement is waived. Regardless of whether GRE scores are submitted, all applications will be held in equal regard.

Students holding a bachelor's degree with a natural science, social science, or engineering major and strong mathematical background are encouraged to apply for admission to the graduate program in statistics. Students are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high.

FUNDING

GRADUATE SCHOOL RESOURCES

Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid. Further funding information (https://grad.wisc.edu/funding/) is available from the Graduate School. Be sure to check with your program for individual policies and restrictions related to funding.

PROGRAM RESOURCES

Each option within Statistics has different funding policies and opportunities for students. Please see each option for details.

- Statistics: Applied Statistics, M.S. (http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-applied-statistics-ms/)
- Statistics: Biostatistics, M.S. (http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-biostatistics-ms/)
- Statistics: Statistics and Data Science, M.S. (http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-data-science-ms/)
- Statistics: Statistics, M.S. (http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-statistics-ms/)

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

NAMED OPTION REQUIREMENTS

MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

Mode of Instruction Definitions

Accelerated: Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

Evening/Weekend: Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

Face-to-Face: Courses typically meet during weekdays on the UW-Madison Campus.

Hybrid: These programs combine face-to-face and online learning formats. Contact the program for more specific information.

Online: These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

CURRICULAR REQUIREMENTS

Requirement	Detail
Minimum Credit Requirement	51 credits

Minimum Residence Credit Requirement	32 credits
Minimum Graduate Coursework Requirement	Half of degree coursework (26 credits out of 51 total credits) must be completed graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle/)).
Overall Graduate GPA Requirement	3.00 GPA required.
Other Grade Requirements	A grade of B or better must be received in any course used to fulfill the required and elective course requirements.
Assessments and Examinations	Students must pass the Ph.D. qualifying examination, an oral preliminary examination on a topic selected with the approval of the student's advisor, and a dissertation defense.
Language Requirements	No language requirements.
Doctoral Minor/ Breadth Requirements	For BDO students, the breadth requirement is satisfied by: (1) the biological sciences course and (2) the collaborative research experience.

REQUIRED COURSES

Code	Title	Credits
Required Courses:		
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT/MATH 709	Mathematical Statistics	4
STAT/MATH 710	Mathematical Statistics	4
STAT/MATH 733	Theory of Probability I	3
or STAT 771	Statistical Computing	
STAT 849	Theory and Application of Regression and Analysis of Variance I	3
STAT 850	Theory and Application of Regression and Analysis of Variance II	3
STAT 998	Statistical Consulting	3
Additionally four elective courses (12 credits) numbered 642 or higher must be taken, EXCLUDING above and STAT 609, STAT 610, STAT 699, and STAT 990:		*12*
The chosen electives must contain AT LEAST two of three Biostatistics specialized courses:		
STAT/B M I 642	Statistical Methods for Epidemiology	
STAT/B M I 741	Survival Analysis Theory and Methods	
STAT/B M I 877	Statistical Methods for Molecular Biology	
A twelfth course is required (3 credits) from an approved list of Biological Sciences courses.		**3**
GENETICS 466	Principles of Genetics	
ZOOLOGY 570	Cell Biology	
POP HLTH 795	Principles of Population Health Sciences	
Approval of other biological sciences courses is at the discretion of the BDO Committee.		
STAT 992 may only be used once for the same topic		
Sufficient credits from any UW Madison courses including STAT 990 to reach the 51-credit minimum		*13*
Total Credits		**51**

COLLABORATIVE RESEARCH EXPERIENCE:

This unique aspect of the BDO program provides the student with experience in interdisciplinary collaborative research under the supervision of a faculty trainer. Students can accomplish this requirement by rotating through directed study/research credits with various faculty trainers.

- Lab rotations should be completed during the first three years of the program
- Lab rotations need to be established at the beginning of the semester, plan accordingly!
- Students must give a presentation of their research at the end of the same semester

POLICIES

GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (https://grad.wisc.edu/acadpolicy/) provide essential information regarding general university policies. Program authority to set degree policies beyond the minimum required by the Graduate School lies with the degree program faculty. Policies set by the academic degree program can be found below.

NAMED OPTION-SPECIFIC POLICIES

PRIOR COURSEWORK

Graduate Work from Other Institutions

With program approval, students are allowed to count no more than 9 credits of graduate coursework from other institutions toward the graduate degree credit and graduate coursework (50%) requirements. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison Undergraduate

With program approval, up to 6 statistics credits from a UW–Madison undergraduate degree at the 600 level or above are allowed to count toward minimum graduate degree credits. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

UW–Madison University Special

With program approval, up to 15 statistics credits completed at UW–Madison while a University Special student at the 300 level or above are allowed to count toward minimum graduate degree and graduate residence credit requirements. Of these credits, those at the 700 level or above may also count toward the minimum graduate coursework (50%)

requirement. Coursework earned ten or more years prior to admission to a doctoral degree is not allowed to satisfy requirements.

PROBATION

Three consecutive reviews in which a student fails to meet the minimum criteria for satisfactory progress will result in the student being dropped from the program. Contact the program for more information.

ADVISOR / COMMITTEE

Students are required to meet with their advisor near the beginning of each semester to discuss course selection and progress.

CREDITS PER TERM ALLOWED

15 credits

TIME LIMITS

Students must pass the Ph.D. qualifying examination within six semesters from the first fall semester of registration as a graduate student in the department. Students who complete a master's in the department and then are admitted to the Ph.D. program must pass the Ph.D. qualifying examination within four semesters after entering the Ph.D. program.

GRIEVANCES AND APPEALS

These resources may be helpful in addressing your concerns:

- Bias or Hate Reporting (https://doso.students.wisc.edu/bias-or-hate-reporting/)
- Graduate Assistantship Policies and Procedures (https://hr.wisc.edu/policies/gapp/#grievance-procedure)
- Hostile and Intimidating Behavior Policies and Procedures (https://hr.wisc.edu/hib/)
  - Office of the Provost for Faculty and Staff Affairs (https://facstaff.provost.wisc.edu/)
- Dean of Students Office (https://doso.students.wisc.edu/) (for all students to seek grievance assistance and support)
- Employee Assistance (http://www.eao.wisc.edu/) (for personal counseling and workplace consultation around communication and conflict involving graduate assistants and other employees, post-doctoral students, faculty and staff)
- Employee Disability Resource Office (https://employeedisabilities.wisc.edu/) (for qualified employees or applicants with disabilities to have equal employment opportunities)
- Graduate School (https://grad.wisc.edu/) (for informal advice at any level of review and for official appeals of program/departmental or school/college grievance decisions)
- Office of Compliance (https://compliance.wisc.edu/) (for class harassment and discrimination, including sexual harassment and sexual violence)
- Office of Student Conduct and Community Standards (https://conduct.students.wisc.edu/) (for conflicts involving students)
- Ombuds Office for Faculty and Staff (http://www.ombuds.wisc.edu/) (for employed graduate students and post-docs, as well as faculty and staff)
- Title IX (https://compliance.wisc.edu/titleix/) (for concerns about discrimination)

Students should contact the department chair or program director with questions about grievances. They may also contact the L&S Academic Divisional Associate Deans, the L&S Associate Dean for Teaching and Learning Administration, or the L&S Director of Human Resources.

OTHER

Students pursuing the general statistics and biostatistics options are considered for department financial support and may seek a dual degree if desired.

PROFESSIONAL DEVELOPMENT

GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (https://grad.wisc.edu/pd/) to build skills, thrive academically, and launch your career.

PEOPLE

Faculty:

Cecile Ane (https://stat.wisc.edu/staff/ane-cecile/), Professor

Joshua Cape (https://stat.wisc.edu/staff/cape-joshua/), Assistant Professor

Richard Chappell (https://stat.wisc.edu/staff/chappell-rick/), Professor

Peter Chien (https://stat.wisc.edu/staff/chien-peter/), Professor

Jessi Cisewski-Kehe (https://stat.wisc.edu/staff/cisewski-kehe-jessi/), Assistant Professor

Deshpande, Sameer (https://skdeshpande91.github.io/), Assistant Professor

Nicolas Garcia Trillos (https://stat.wisc.edu/staff/trillos-nicolas-garcia/), Assistant Professor

Yinqiu He (https://stat.wisc.edu/staff/he-yinqiu/), Assistant Professor

Hyunseung Kang (https://stat.wisc.edu/staff/kang-hyunseung/), Associate Professor

Sunduz Keles (https://stat.wisc.edu/staff/keles-sunduz/), Professor

Bret Larget (https://stat.wisc.edu/staff/larget-bret/), Professor

Keith Levin (https://stat.wisc.edu/staff/levin-keith/), Assistant Professor

Wei-Yin Loh (https://stat.wisc.edu/staff/loh-wei-yin/), Professor

Michael Newton (https://stat.wisc.edu/staff/newton-michael/), Professor

Vivak Patel (https://stat.wisc.edu/staff/patel-vivak/), Assistant Professor

Alejandra Quintos (https://stat.wisc.edu/staff/quintos-alejandra/), Assistant Professor

Garvesh Raskutti (https://stat.wisc.edu/staff/raskutti-garvesh/), Associate Professor

Karl Rohe (https://stat.wisc.edu/staff/rohe-karl/), Professor

Kris Sankaran (https://stat.wisc.edu/staff/sankaran-kris/), Assistant Professor

Jun Shao (https://stat.wisc.edu/staff/shao-jun/), Professor

Miaoyan Wang (https://stat.wisc.edu/staff/wang-miaoyan/), Assistant Professor

Yahzen Wang (https://stat.wisc.edu/staff/wang-yazhen/) (chair), Professor

Brian Yandell (https://stat.wisc.edu/staff/yandell-brian/), Professor

Chunming Zhang (https://stat.wisc.edu/staff/zhang-chunming/), Professor

Yiqiao Zhong (https://stat.wisc.edu/staff/zhong-yiqiao/), Assistant Professor

Jun Zhu (https://stat.wisc.edu/staff/zhu-jun/), Professor