

STATISTICS: BIostatistics, PhD

This is a named option in the Statistics PhD. (<https://stat.wisc.edu/graduate-admissions/>)

ADMISSIONS

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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)	Not Required.
English Proficiency Test	Every applicant whose native language is not English, or whose undergraduate instruction was not exclusively in English, must provide an English proficiency test score earned within two years of the anticipated term of enrollment. Refer to the Graduate School: Minimum Requirements for Admission policy: https://policy.wisc.edu/library/UW-1241 (https://policy.wisc.edu/library/UW-1241/).
Other Test(s) (e.g., GMAT, MCAT)	n/a
Letters of Recommendation Required	3

Individuals 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. Applicants are advised to undertake graduate work in statistics only if their undergraduate grades in mathematics were uniformly high.

FUNDING

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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, MS (<http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-applied-statistics-ms/>)
- Statistics: Biostatistics, MS (<http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-biostatistics-ms/>)
- Statistics: Statistics and Data Science, MS (<http://guide.wisc.edu/graduate/statistics/statistics-ms/statistics-statistics-data-science-ms/>)
- Statistics: Statistics, MS (<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/#policiesandrequirements>), 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	26 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: https://policy.wisc.edu/library/UW-1244 (https://policy.wisc.edu/library/UW-1244/).
Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: https://policy.wisc.edu/library/UW-1203 (https://policy.wisc.edu/library/UW-1203/).
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 PhD 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.
Graduate School Breadth Requirement	For PhD Statistics: Biostatistics named option students, the breadth requirement is satisfied by: (1) the biological sciences course and (2) the collaborative research experience.

REQUIRED COURSES

Code	Title	Credits
Core		
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 or STAT 771	Theory of Probability I Statistical Computing	3
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
<i>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:</i>		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 program 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 Statistics: Biostatistics named option 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 Credits Earned at Other Institutions

With program approval, students are allowed to transfer 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.

Undergraduate Credits Earned at Other Institutions or UW-Madison

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

Credits Earned as a Professional Student at UW-Madison (Law, Medicine, Pharmacy, and Veterinary careers)

Refer to the Graduate School: Transfer Credits for Prior Coursework (<https://policy.wisc.edu/library/UW-1216/>) policy.

Credits Earned as a University Special Student at UW-Madison

With program approval, up to 15 statistics credits completed at UW-Madison while a University Special student numbered 300 or above

are allowed to transfer toward the minimum graduate degree credit requirement. Of these credits, those numbered 700 or above or are taken to meet the requirements of a capstone certificate and has the "Grad 50%" attribute may also transfer 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 PhD 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 PhD program must pass the PhD qualifying examination within four semesters after entering the PhD 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/>)
- 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://employeeabilities.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 Student Assistance and Support (OSAS) (<https://osas.wisc.edu/>) (for all students to seek grievance assistance and support)
- 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

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

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

Sameer Deshapande (<https://stat.wisc.edu/staff/deshpande-sameer/>), Assistant Professor

Rishabh Dudeja (<https://stat.wisc.edu/staff/dudeja-rishabh/>), Assistant Professor

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

Chris Geoga (<https://stat.wisc.edu/staff/geoga-chris/>), Assistant Professor

Yongyi Guo (<https://stat.wisc.edu/staff/guo-yongyi/>), Assistant Professor

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

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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

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