STATISTICS: STATISTICS, PHD

REQUIREMENTS

MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum degree requirements (https://guide.wisc.edu/graduate/#requirementstext) and policies (https://guide.wisc.edu/graduate/#policiestext), 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	Statistics doctoral students are not required to complete a minor or graduate/professional certificate by the Graduate School. The program does require students to meet the breadth requirement (https://policy.wisc.edu/library/UW-1200 (https://policy.wisc.edu/library/UW-1200/)) for a minimum of 9 credits in one of three ways: • Complete an Option A (external) minor • Complete an Option B (distributed) minor consisting of at least 3 credits outside the Department of Statistics • Complete a Graduate/Professional Certificate Courses or credits applied towards the breadth requirement cannot also be applied to core, methods, or elective categories below. See the program website (https://stat.wisc.edu/graduate-studies/phd-program (https://stat.wisc.edu/graduate-studies/phd-program/)/) for more details.

REQUIRED COURSES

Code	Title	Credits
Core		
Students must complete the following courses.		
STAT/MATH 709	Mathematical Statistics I	4
STAT/MATH 710	Mathematical Statistics II	4
STAT 771	Computational Statistics	4
STAT 849	Advanced Statistical Methods	4
STAT 998	Statistical Consulting	3
Methods		
Students must complete 3 credits of methods. Refer to the "Methods Courses" table for courses that satisfy this requirement.		3
Statistics Electives		
Students must complete 9 credits of statistics electives. Refer to the "Statistics Electives Courses" table for courses that satisfy this requirement. Note: Students cannot apply the same course towards both the methods requirement and statistics electives requirement.		9
Breadth		**9**
Additional Coursework		
Students must complete 11 credits of additional coursework to meet the minimum credit requirement. Typically, this is earned through a combination of directed research (course listed below) and other elective courses selected in consultation with advisor.		11

STAT 990	Research	
Total Credits		**51**

Methods Courses

Code	Title	Credits
STAT/B M I 620	Statistics in Human Genetics	3
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT/B M I 642	Statistical Methods for Epidemiology	3
STAT/B M I 643	Clinical Trial Design, Implementation, and Analysis	3
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3
STAT/B M I 727	Theory and Methods of Longitudinal Data Analysis	3
STAT/B M I 741	Survival Analysis Theory and Methods	3
STAT 761	Decision Trees for Multivariate Analysis	3
STAT/B M I 768	Statistical Methods for Medical Image Analysis	3
STAT/ECON/ GEN BUS 775	Bayesian Statistics	3
STAT 801	Advanced Financial Statistics	3
STAT/MATH 803	Experimental Design I	3
STAT 809	Non Parametric Statistics	3
STAT/B M I 828	Semiparametric Methods in Data Science	3
STAT 841	Nonparametric Statistics and Machine Learning Methods	3
STAT/B M I 877	Statistical Methods for Molecular Biology	3

Statistics Electives Courses

Code	Title	Credits
STAT/B M I 620	Statistics in Human Genetics	3
STAT/B M I 641	Statistical Methods for Clinical Trials	3
STAT/B M I 642	Statistical Methods for Epidemiology	3
STAT/B M I 643	Clinical Trial Design, Implementation, and Analysis	3
STAT 701	Applied Time Series Analysis, Forecasting and Control I	3
STAT/COMP SCI/ I SY E/MATH 726	Nonlinear Optimization I	3
STAT/B M I 727	Theory and Methods of Longitudinal Data Analysis	3
STAT 732	Large Sample Theory of Statistical Inference	3
STAT/MATH 733	Theory of Probability I	3
STAT/MATH 734	Theory of Probability II	3
STAT/B M I 741	Survival Analysis Theory and Methods	3
STAT 760	Multivariate Analysis I	3
STAT 761	Decision Trees for Multivariate Analysis	3
STAT/B M I 768	Statistical Methods for Medical Image Analysis	3
STAT 772	Linear Randomized Algorithms for Data Science	3
STAT/ECON/ GEN BUS 775	Bayesian Statistics	3
STAT 780	Introduction to Quantum Data Science	3
STAT 801	Advanced Financial Statistics	3
STAT/MATH 803	Experimental Design I	3
STAT 809	Non Parametric Statistics	3
STAT/B M I 828	Semiparametric Methods in Data Science	3
STAT/MATH 833	Topics in the Theory of Probability [1]	3
STAT 841	Nonparametric Statistics and Machine Learning Methods	3
STAT/COMP SCI/ E C E 861	Theoretical Foundations of Machine Learning	3
STAT/B M I 877	Statistical Methods for Molecular Biology	3
STAT/E C E/ MATH 888	Topics in Mathematical Data Science [1]	1-3
STAT 992	Seminar [1]	1-3
MATH 521	Analysis I	3

[1] Students may not apply multiple special topics courses with the same topic title towards their degree.