STATISTICS: BIOSTATISTICS, 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	30 credits
Minimum Residence Credit Requirement	16 credits
Minimum Graduate Coursework Requirement	15 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 a competency test containing both a written and an oral component, demonstrating that they have the potential to be a practicing statistician.
Language Requirements	No language requirements.

REQUIRED COURSES

Code	Title	Credits
Core		
STAT 609 or STAT/ MATH 709	Mathematical Statistics I Mathematical Statistics	3
STAT 610 or STAT/ MATH 710	Introduction to Statistical Inference Mathematical Statistics	4
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
Select 6 or more credits of STAT courses 600 or higher [1]		
Must include 6 elective credits in:		
STAT/B M I 641	Statistical Methods for Clinical Trials	3
And		
STAT/B M I 642	Statistical Methods for Epidemiology	3
or STAT/B M I 741	Survival Analysis Theory and Methods	
or STAT/B M I 877	Statistical Methods for Molecular Biology	
The following will also be allowed to count toward the 30-credit minimum for the master's degree (with permission of the Director of Graduate Studies)		
Up to 6 credits from STAT Courses Numbered:		6
STAT 303	R for Statistics I	
STAT 304	R for Statistics II	
STAT 305	R for Statistics III	
STAT 349	Introduction to Time Series	
STAT 351	Introductory Nonparametric Statistics	
STAT 411	An Introduction to Sample Survey Theory and Methods	
STAT 421	Applied Categorical Data Analysis	
STAT 433	Data Science with R	
STAT 443	Classification and Regression Trees	
STAT 451	Introduction to Machine Learning and Statistical Pattern Classification	
STAT 453	Introduction to Deep Learning and Generative Models	
STAT 456	Applied Multivariate Analysis	
STAT 461	Financial Statistics	

STAT/COMP SCI 471	Introduction to Computational Statistics	
STAT/COMP SCI/MATH 475	Introduction to Combinatorics	
STAT 479	Special Topics in Statistics	
STAT/COMP SCI/I SY E/MATH 525	Linear Optimization	
STAT 575	Statistical Methods for Spatial Data	
Courses that cover the same or similar topic at the undergraduate- and graduate-level may both be used towards the MS requirements. If both courses are to be used, the undergraduate level course must be completed first for both courses to be counted. Otherwise, only the graduate level course will be counted. Please note that this policy does not preclude students from taking just the undergraduate or just the graduate version of a topic. These combinations would include STAT 349 Introduction to Time Series and STAT 701 Applied Time Series Analysis, Forecasting and Control I; STAT 351 Introductory Nonparametric Statistics and STAT 809 Non Parametric Statistics; STAT 456 Applied Multivariate Analysis and STAT 760 Multivariate Analysis I; STAT 443 Classification and Regression Trees and STAT 761 Decision Trees for Multivariate Analysis; STAT 451 Introduction to Machine Learning and Statistical Pattern Classification and STAT 615 Statistical Learning; and STAT/COMP SCI 471 Introduction to Computational Statistics and STAT 771 Statistical Computing. This will also apply to special topics courses that have similar topics between the undergraduate and graduate level.		
Up to 6 credits of graduate courses outside of STAT in consultation with advisor.		**0-6**
Up to 6 credits of STAT 699 in consultation with advisor.		**0-6**
Total Credits		**30**

[1] Courses that do not satisfy this requirement are: STAT 601 Statistical Methods I, STAT 602 Statistical Methods II, STAT 609 Mathematical Statistics I, STAT 610 Introduction to Statistical Inference, STAT 628 Data Science Practicum, STAT 678 Introduction to Statistical Consulting, STAT 699 Directed Study, STAT/MATH 709 Mathematical Statistics, STAT/MATH 710 Mathematical Statistics, STAT 849 Theory and Application of Regression and Analysis of Variance I, STAT 850 Theory and Application of Regression and Analysis of Variance II, or STAT 998 Statistical Consulting