Northwestern | Statistics and Data Science

Ad Hoc MS in Applied Statistics Degree Program Application

Instructions

Step 1: Download and complete the **Ad Hoc MS in Applied Statistics Degree Program Application.** Please note this application requires you to complete <u>both</u> the **Ad Hoc MS in Applied Statistics Program Application** and the TGS **Application for Ad Hoc Combined Degree**. The forms are combined into one for your convenience.

Step 2: Contact your Director of Graduate Studies (DGS) or the Graduate Program administrator in your department to determine the 9 courses that will be used to meet the TGS minimum coursework requirement for your PhD. Remember, for each degree – both the PhD and Ad Hoc MS - you must complete nine, quality letter graded (ABC, not P/NP) course units authorized by TGS for graduate credit without any double counting. Courses taken for the PhD other than the 9 you list in the "PhD Degree courses for TGS degree requirement" section of the Ad Hoc MS application might also be counted toward the MS at the discretion of the MS in Applied Statistics Program Director. See https://www.tgs.northwestern.edu/academic-policies-procedures/policies/ad-hoc-combined-degrees.html for more information.

Step 3: Meet with your Advisor and/or Director of Graduate Studies (DGS) to review the courses and your proposed plan of study and discuss timeline.

Step 4: Contact MS in Applied Statistics Program Director, Prof. Noelle Samia, at n-samia@northwestern.edu to schedule your appointment. Meet with Program Director, Prof. Noelle Samia, to review your proposed plan and discuss timeline. Make any needed changes to your application forms.

Step 5: Contact your Advisor and DGS and have them provide signatures of approval on the application. Be sure they include statements in appropriate boxes when required.

Step 6: Email your completed application with signatures and statements of support from your DGS and Advisor to Program Director, Prof. Noelle Samia, at n-samia@northwestern.edu for final review and approval.

Step 7: Director Samia will sign and provide the approved application to the Statistics and Data Science department administrators, who will collect the statement of support and signature from the Statistics and Data Science department's Director of Graduate Studies for the TGS portion of the application.

Step 8: The department administrators will send a copy of your approved application to you and submit it to TGS. They will also communicate with you about reserved seats if you have selected the Data Science course plan option or have STAT 302 on your plan.

Step 9: TGS will provide final approval necessary for you to pursue the Ad Hoc Master of Science in Applied Statistics degree.

If you have questions about the application or process, please contact stats@northwestern.edu

First Name		**Last Name**	
Preferred First Name		**Student ID #**	
NetID		**Email address**	
Phone number		**Year of entry to Northwestern**	
PhD Department, School			
Start of MS coursework		**Anticipated completion of MS**	
Anticipated completion of PhD		**PhD Advisor Name**	

Reason for Master of Science in Applied Statistics Degree

Please provide a brief explanation for why you wish to pursue an Ad Hoc Master of Science in Applied Statistics degree.

TGS Minimum Coursework Requirement for the PhD Courses

Below please list the 9 courses that your department will apply toward the TGS minimum coursework requirement for the PhD. These courses must be quality letter graded (ABC, not P/NP) courses authorized by TGS for graduate credit.

The 9 courses listed here for the PhD **may not** also be included in your plan of study for the Ad Hoc MS courses. There can be no double counting between the 9 courses used to meet the TGS minimum coursework requirement for the PhD degree and the 9 courses used to meet the TGS minimum coursework requirement for the Ad Hoc MS in Applied Statistics degree. For more information on this TGS policy see https://www.tgs.northwestern.edu/academic-policies-procedures/policies/ad-hoc-combined-degrees.html

Courses taken in pursuit of the PhD not listed below may be included in the MS plan of study with approval from the Ad Hoc MS in Applied Statistics Program Director if the Ad Hoc MS Plan of Study Option you select allows courses from outside Statistics and Data Science department.

Please consult with your department Director of Graduate Studies or Graduate Program administrator to determine the 9 courses that you should include in the PhD courses list.

PhD Courses List

	Course Number	Course Name	Anticipated quarter & year	Completed Yes/No
1				
2				
3				
4				
5				
6				
7				
8				
9				

Plan of Study for the Ad Hoc MS in Applied Statistics

This Ad Hoc combined degree MS program requires 9 courses + a culminating project. You will take a total of 9 courses for the MS in Applied Statistics degree: 2 required foundation statistics courses (320-1,2 or 420-1,2) plus 7 additional approved courses.

Foundational Statistics Courses – 2 courses

Two courses STAT 320-1 and STAT 320-2 or 420-1 and 420-2 will ordinarily be required of all students to provide a foundation in statistical theory. Most students will take 320-1,2 but students with advanced mathematics may select 420-1,2 with department approval. Please select which of the two options you will take for the MS.

Please select your Foundational Statistics Courses

	Foundational Course options	Course Name	Anticipated year	Completed Yes/No
	STAT 320-1	Statistical Theory and Methods 1		
	STAT 320-2	Statistical Theory and Methods 2		
	STAT 420-1	Statistical Theory & Methodology 1		
	STAT 420-2	Statistical Theory & Methodology 2		

Ad Hoc MS in Applied Statistics Program Director notes

Plan of Study Options

There are three Plan of Study options for the MS program which outline the type of courses you may include in the Approved Plan of Study Course List. You will use the Plan of Study option you select to guide your selection of courses you propose taking for the MS degree.

Please select the option that best serves your reasons for pursuing the Ad Hoc MS in Applied Statistics degree in conjunction with your PhD degree.

Data Science Option - 9 courses total
STAT 320-1 (or 420-1), STAT 320-2 (or 420-2)
STAT 301-1,2,3 Data Science sequence with R or STAT 303-1,2,3 Data Science sequence with Python
+ 4 additional Statistics and Data Science department courses

Outside Course Option - 9 courses total
STAT 320-1 (or 420-1), STAT 320-2 (or 420-2)
+ 4 or more Statistics and Data Science department statistics courses *(does not include Data Science sequence courses)*
+ up to 3 statistics courses (approved by director) from outside Statistics and Data Science department

All Statistics Option - 9 courses total
STAT 320-1 (or 420-1), STAT 320-2 (or 420-2)
+ 7 Statistics and Data Science department statistics courses *(does not include Data Science sequence courses)*

Important notes regarding STAT 301-1,2,3 Data Science sequence with R or STAT 303-1,2,3 Data Science sequence with Python: You may not select to take the first two courses only. Students are required to sign up to take all three courses in the sequence.

Important notes regarding STAT 302 Data Visualization: This course may be included in all three of the Plan of Study options, but please be aware only a limited number of seats are available in this course each year.

Approved Plan of Study Courses

Next, using the Plan of Study option selected above as a guideline, select an additional 7 courses from the approved list of courses (https://statistics.northwestern.edu/graduate/ad-hoc-ms-degree/approved-courses.html) with the advice and approval of your PhD advisor and the MS in Applied Statistics Program Director. If you would like to propose a course not on the approved courses list, please contact the MS in Applied Statistics Program Director with the course number, name, and information to request approval.

Important: If your Plan of Study option is Data Science, you must select which sequence you want to take, STAT 301-1,2,3 Data Science sequence with R or STAT 303-1,2,3 Data Science sequence with Python, and the year you want to take the sequence in. Seats in these courses are limited and assigned to students as the MS applications are approved. Once your seat in the sequence is confirmed by a department administrator, you must take the courses at the time you are assigned to be guaranteed seats. Please contact the department at stats@northwestern.edu for seat availability or questions about Data Science course scheduling. The year you will be taking the sequence course will be confirmed by a department administrator prior to your application being sent for final TGS approval.

If STAT 302 Data Visualization is included in your course list, seats in this course are limited and assigned to students as the MS applications are approved. Once your seat in the course is confirmed, you must take the course at the time you are assigned. Please contact the department at stats@northwestern.edu, for seat availability. The year and quarter you will be taking the sequence course will be confirmed by a department administrator prior to your application being sent for final TGS approval.

Once your application is approved, you may take any course on the Approved Plan of Study Course List or the Alternative Course Options list.

Approved Plan of Study Course List – 7 courses

Enter your 7 selected approved courses here

Course Number	Course Name	Anticipated quarter & year	Completed Yes/No

Approved Alternative Course Options List

If you are deciding between courses, indicate the other options you are considering below.

Course Number	Course Name	Sub for Course #	Completed Yes/No

Ad Hoc MS in Applied Statistics Program Director notes

Acknowledgement of Approved Plan of Study

I understand
- The 9 courses taken for the MS must be letter graded (ABC, not P/NP) course units authorized by TGS for graduate credit and may not be double counted with the 9 courses that TGS will count toward my PhD (the 9 courses for the PhD you listed on the TGS Application for Ad Hoc Combined Degree form).
- That the department requires I have a minimum cumulative GPA of 3.0 for the courses taken for the MS.
- I may take any course on the Approved Plan of Study Course List or the Approved Alternative Course Options list.
- If I want to take a course that is not listed on the Approved Plan of Study Course List or the Alternative Course Options list, I will need to obtain approval from the MS in Applied Statistics Program Director to have it added to my approved plan of study prior to taking the course.
- If the Data Science sequence or Data Visualization are on my approved plan, I must take them in the quarter & year assigned to be guaranteed a seat in these courses.

Applicant Initials _____

MS in Applied Statistics Culminating Project

All MS in Applied Statistics candidates are required to complete a project using statistics. The statistics included should be above and beyond what is typical in their field and should build off what has been learned in the MS coursework. This project is typically work that will be included in the student's PhD thesis but can also be a stand-alone project.

Degree candidates will be required to submit an Ad Hoc MS Culminating Project Proposal Form to the MS in Applied Statistics Program Director for final project approval prior to beginning work on their project. This form can be submitted any time after an accepted student has completed STAT 320-1 (420-1) and STAT 320-2 (420-2).

Acknowledgement of the Culminating Project Requirement

I understand that
- the Culminating Project is a degree requirement for the MS in Applied Statistics
- the Ad Hoc MS Culminating Project Proposal Form (found here) must be submitted and approval received prior to beginning work on the project
- the Culminating Project must be submitted and approved for the MS degree work to be complete

Applicant Initials _____

Applicant Signature
This document accurately reflects my plan for completing a Master of Science in Applied Statistics degree

Applicant Signature   Date

Approvals

All MS in Applied Statistics Degree applications must be reviewed and approved by the applicant's PhD program Director of Graduate Studies or Advisor and the Ad Hoc MS in Applied Statistics Program Director.

I have reviewed the plan and approve this student to pursue a Master of Science in Applied Statistics Degree.

Signature of PhD Program Advisor or DGS	Date

Signature of MS in Applied Statistics Program Director	Date

The Graduate School's Application for Ad Hoc Combined Degree

Completing The Graduate School's Application for Ad Hoc Combined Degree is also required as part of the application for the Ad Hoc MS in Applied Statistics program. You will find the TGS application on the next page.

When completing the "Coursework, completed and proposed, to meet TGS minimum coursework requirements for each degree" section of the application, please first list the 9 courses that TGS should count toward your PhD (the courses you entered for the PhD Course List) and then list the 9 courses TGS should count toward the MS degree (the 2 Foundational Statistics Courses plus the 7 Approved Plan of Study Courses). There must be 18 unique courses listed in total.

Please note that TGS does require a statement of support with the signatures of the Primary Academic Advisor (your PhD advisor), the Primary Program of Study DGS (the PhD program's DGS), and Secondary Program of Study DGS (the Department of Statistics and Data Science DGS). Applications cannot be processed without these statements.

The statement and signature from Department of Statistics and Data Science DGS will be obtained by a Department of Statistics and Data Science department administrator after the applications have been reviewed and approved by the MS in Applied Statistics Program Director. Please do not change the Secondary degree program Director of Graduate Studies name. The DGS is different than the MS in Applied Statistics Program Director.

Once approved and complete with all signatures and statements, a Department of Statistics and Data Science department administrator will send the full application to TGS for review and approval. You will receive a copy of the full application with all department approvals at the same time it is submitted to TGS. Please keep this for your records as it contains the courses that are approved for your plan of study and the information regarding the requirements for the degree.

Final approval to pursue the Ad Hoc MS in Applied Statistics degree will come from TGS.

If you need to make any changes to your approved plan of study after receiving TGS approval, you will contact the MS in Applied Statistics Program Director to request approval for the change.

TGS degree conferral policy: "The master's degree outside of the approved PhD program may not be conferred before the PhD is conferred. A student who departs (withdraws, is dismissed, or otherwise discontinued from) the PhD program to which the student was originally admitted becomes ineligible for the secondary master's degree." See https://www.tgs.northwestern.edu/academic-policies-procedures/policies/ad-hoc-combined-degrees.html

Northwestern | THE GRADUATE SCHOOL

Application for Ad Hoc Combined Degree

Students may pursue multiple degrees concurrently in more than one program within TGS only when the student has received permission to pursue a secondary master's degree **at the beginning** of the proposed plan of secondary study, per the TGS Policy. To request permission to pursue concurrent degrees outside of an existing combined degree program, students must submit this completed form to gradservices@northwestern.edu

First Name _____ **Last Name** _____

Student ID # _____

Primary Program, School _____

Primary Program Director of Graduate Studies name _____

Primary Program Advisor Name _____

Secondary degree program Director of Graduate Studies name   Matey Neykov _____

Anticipated quarter of PhD degree completion _____

Proposed secondary degree program of study (program and degree)   MS in Applied Statistics _____

Anticipated start date (quarter/year) of study in secondary program _____

Anticipated quarter of completion of study in secondary program _____

Reason for Pursuing the Secondary Degree
Briefly explain the academic/intellectual rationale for the plan of study

Proposed Plan of Study

Provide a description of your plan to fulfill all published requirements (including coursework, projects theses, etc.) for each degree without double counting TGS's minimum requirement for courses.

Coursework, completed and proposed, to meet TGS minimum coursework requirements for each degree:

Course Number	Course Name	Anticipated quarter and year	Completed

Student Signature

This document accurately reflects my plan for completing an ad hoc combined degree.

Student Applicant Signature	Date

Approvals

Students who wish to pursue an ad hoc combined degree must obtain:

- *A statement from the primary academic advisor supporting the rationale for the secondary degree and confirming that the student is making acceptable progress toward the primary degree and;*
- *A statement from the Director of Graduate Study (DGS) for the **primary degree program** confirming that the outlined plan of study is acceptable and that the student has permission to pursue the degrees concurrently.*
- *A statement from the Director of Graduate Study (DGS) for the **secondary degree program** confirming that the outlined plan of study is acceptable and that the student has permission to pursue the degrees concurrently.*

Primary Academic Advisor Approval

Statement of Support:

Advisor Signature	Date

Primary Program of Study DGS Approval

Statement of Support:

Primary Program DGS Signature	Date

Secondary Program of Study DGS Approval

Statement of Support:

Secondary Program DGS Signature	Date