

Program Guide to Undergraduate and Graduate Studies in Statistics and Biostatistics

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TABLE OF CONTENTS

UNDERGRADUATE PROGRAMS	1
MASTER OF APPLIED STATISTICS PROGRAM.....	2
MASTER OF SCIENCE IN STATISTICS PROGRAM.....	4
PHD IN STATISTICS PROGRAM.....	7
INTERDISCIPLINARY PHD PROGRAM IN BIOSTATISTICS	12
GRADUATE MINOR IN STATISTICAL DATA ANALYSIS PROGRAM.....	13
GRADUATE MINOR IN STATISTICS PROGRAM	14

UNDERGRADUATE PROGRAMS

Information about all undergraduate programs affiliated with the Department of Statistics can be found on the department's website: <https://stat.osu.edu/undergraduates/overview/academic-programs>

MASTER OF APPLIED STATISTICS PROGRAM

The goal of the Master of Applied Statistics (MAS) program is to prepare graduate students to enter positions in applied statistics in business, industry, or government. The program is typically two years and requires a minimum of 33 credit hours of course work, of which 28 hours are required courses. The program culminates with a graduation examination. Students without sufficient background in mathematics may be required by the Graduate Studies Committee to take additional courses to correct these deficiencies. The Graduate Studies Chair serves as the advisor for all MAS students.

Students in the MAS program are subject to the policies set forth by the Graduate School. See the [Graduate School Handbook](#) for details.

Course Requirements (33 hours)

<u>Core</u>	6301 (3)	Probability for Statistical Inference
<u>(28 hours)</u>	6302 (3)	Theory of Statistical Analysis
	6410 (4)	Design and Analysis of Experiments
	6450 (4)	Applied Regression Analysis
	6560 (3)	Applied Multivariate Analysis
	6570 (2)	Applied Bayesian Analysis
	6610 (3)	Applied Nonparametric Statistics
	6650 (2)	Discrete Data Analysis
	6730 (2)	Introduction to Computational Statistics
	6750 (2)	Statistical Consulting and Collaboration
 <u>Electives</u>		 Any 5 hours of approved elective courses
<u>(5 hours)</u>		(Usually statistics courses - See Note #3 below)

Sample MAS Course Program

(Courses are typically only offered in the terms in which they are listed in the sample program below, with the exception of STAT 6450 and 6610. Individual electives are not offered on a regular basis. See [Buckeyelink](#) for details on previous/current offerings and enrollment requirements, including prerequisites. Note that offerings are subject to change. Refer to the [Courses page](#) on our department website for additional information.)

<u>First Year</u>	Autumn	Spring
	6301 (3)	6302 (3)
	6450 (4)	6410 (4)
	6610 (3)	Elective
 <u>Second Year</u>	 Autumn	 Spring
	6560 (3)	6570 (2)
	6730 (2)	6650 (2)
	6750 (2)	Elective

Notes on the Course Requirements

1. Course Substitutions: Required MAS courses taken as an undergraduate at Ohio State must be replaced with approved graduate elective hours unless the courses were taken through senior petition and approved by the Graduate Studies Committee. Upon petition to the Graduate Studies Committee,

required courses may be omitted if there is evidence of substantially equivalent study elsewhere, but they must be replaced with approved electives. Modifications to required courses do not affect the content of the MAS examination or the total credit hours required for the degree.

2. Course Grades: All courses used towards the degree requirements must be taken and passed with a grade of B- or above in a letter-graded course and with a grade of S in a S/U course. Note that all graduate students are required to maintain a cumulative GPA of at least 3.0 both overall and in their statistics courses in order to remain in good standing.
3. Electives: No additional hours of STAT 6750 (beyond the two required hours) may be counted as electives. All other letter-graded 6000-level statistics courses (except STAT 6030, 6040, 6060, 6201, 6740, 6801, 6802, 6910, and 6950), including their cross-listed equivalents, are approved electives. In addition, upon special approval of the Graduate Studies Committee, some 7000- and 8000-level courses may be counted as electives. Students may, with approval of the Graduate Studies Committee, use one course (up to 3 hours) from another department as an elective. The course must have appropriate content for a statistics degree, but may not duplicate the material covered in any course available from the Department of Statistics.

MAS Examination

A passing score on the MAS Examination is required for graduation. The MAS Examination is given in January, and a second offering is given in May if at least one student signs up to take the exam. The January exam is the offering that most full-time MAS students should take if completing the courses according to the usual recommended schedule for full-time students. Each offering of the exam is administered in two sessions: (1) a two-hour period covering the concepts and techniques presented in STAT 6301 and 6302, and (2) a three-hour period covering material in STAT 6410, 6450, 6560, and 6610. Both parts of the examination are open book. A student is permitted a maximum of two attempts at successful completion of the examination.

Forms

Each student is required to submit to the Graduate Studies Committee Chair the departmental MAS Plan of Study form prior to the student's last term of enrollment. Any subsequent modifications in this Plan of Study will require approval of the Graduate Studies Committee. The student must also submit the online Graduate School Application to Graduate form via GRADFORMS.OSU.EDU by the published deadline of the Graduate School. Please consult the [Graduate School website](#) for details. The Plan of Study form must be submitted prior to the Application to Graduate.

MASTER OF SCIENCE IN STATISTICS PROGRAM

The Master of Science (M.S.) degree program can provide preparation for a career in applied statistics or it can be composed primarily of the first two years of course work for either the Statistics Ph.D. program or the methodology specialization of the Biostatistics Ph.D. program. The M.S. degree may be awarded by one of two different routes: Thesis or Non-thesis. Under either route, the M.S. may be a terminal degree. The Non-thesis route may better serve as a steppingstone to the Ph.D. degree if later admitted to the Ph.D. program. The M.S. requires a minimum of 32 credit hours and students in the M.S. program will generally be in residence for two academic years.

Students in the M.S. program are subject to the policies set forth by the Graduate School. See the [Graduate School Handbook](#) for details.

Course Requirements (32 credit hours)

<u>Mathematics</u>		Program coursework requires Advanced Calculus, Linear Algebra, and some Real Analysis. Stat 6111 and Stat 6112 are recommended; previous coursework or courses in the Math department could also be used to meet this requirement.
<u>Core (21 hours)</u>	6801 (4), 6802 (4) 6950 (4), 6910 (4) 7410 (3)	Statistical Theory I & II Applied Statistics I & II Linear Models
<u>one of</u>	6750 (2) PUBHBIO 7245 (2)	Statistical Consulting and Collaboration or Biostatistical Collaboration
<u>Electives (11 hours)</u>		11 hours of approved elective courses appropriate to the Thesis or Non-Thesis option as described in (2a) or (2b) below

Sample M.S. in Statistics Course Program

(Courses are typically only offered in the terms in which they are listed in the sample program below. Individual electives are not offered on a regular basis. See [Buckeyelink](#) for details on previous/current offerings and enrollment requirements, including prerequisites. Note that offerings are subject to change. Refer to the [Courses page](#) on our department website for additional information.)

Basic Sample Program

<u>First Year</u>	Autumn 6801 (4) 6950 (4) 6111 (3)	Spring 6802 (4) 6910 (4) 6112 (3)
<u>Second Year</u>	Autumn 7410 (3) 6750 (2) Elective	Spring Elective Elective Elective

Sample Program for a Terminal Master's Degree

<u>First Year</u>	<u>Autumn</u>	<u>Spring</u>
	6801 (4)	6802 (4)
	6950 (4)	6910 (4)
	6111 (3)	6112 (3)
<u>Second Year</u>	<u>Autumn</u>	<u>Spring</u>
	7410 (3)	6500 (3)
	6750 (2)	6550 (2) or 6530 (2)
	6730 (2)	SP1 6650 (2)
	6510 (3) or 6520 (3) or 6560 (3)	SP2 6570 (2)

Sample Program for a Master's Degree for Students Planning to Pursue a Ph.D.

<u>First Year</u>	<u>Autumn</u>	<u>Spring</u>
	6801 (4)	6802 (4)
	6950 (4)	6910 (4)
	6111 (3)	6112 (3)
<u>Second Year</u>	<u>Autumn</u>	<u>Spring</u>
	7201 (3)	7302 (3)
	7301 (3)	7541 (3)
	7410 (3)	7730 (3)
	6750 (2)	

Notes on the Program Requirements

1. Course Grades – All courses used towards the degree requirements must be taken and passed with a grade of B- or above in a letter-graded course and with a grade of S in a S/U course. Note that all graduate students are required to maintain a cumulative GPA of at least 3.0 both overall and in their statistics courses in order to remain in good standing.
2. Thesis or Examination – The department views either the thesis or non-thesis option as acceptable. However, the department does not view either option as an alternative once the other option has resulted in failure. Most students in recent years have elected to choose the non-thesis option. A student wishing to learn more about the thesis option should talk with the Graduate Studies Chair, who serves as the advisor for all M.S. students unless the student chooses to pursue a thesis with another faculty member. Students planning to do the thesis option must notify the Graduate Studies Chair via email by the beginning of the second year of study.

2a. Thesis Option – Write a thesis and pass an oral examination in defense of this thesis.

(Note: Some professors have problems that are suitable for masters' theses. These topics can range from the very mathematical to applications in other fields.)

Electives* (11 hours): Letter graded Statistics courses at the 6000-level or above (including their cross-listed equivalents), excluding STAT 6030, 6040, 6111, 6112, 6193, 6194, 6201, 6301, 6302, 6410, 6450, 6740, 7193, 7194, 8010, 8193, 8194, 8895, 8999. Up to four hours of thesis preparation under STAT 7998 or STAT 7999 may be counted among the 11 hours of electives. Up to four hours of STAT 8750.xx may be counted.

2b. Non-thesis Option – Pass the M.S. Examination, a written examination that is offered in May, with a second offering in August if at least one student who failed the first offering of the M.S. Exam wishes to retake the exam. M.S. students opting for the non-thesis graduation requirement are expected to take the May offering of the M.S. Exam and are also expected to take the next offering in the event of a failure on the May exam. The examination will cover material from the first year of the M.S. course work. A student is permitted a maximum of two attempts at successful completion of the examination.

Electives* (11 hours): Letter graded Statistics courses at the 6000-level or above (including their cross-listed equivalents), excluding STAT 6030, 6040, 6111, 6112, 6193, 6194, 6201, 6301, 6302, 6410, 6450, 6740, 7193, 7194, 7998, 7999, 8010, 8193, 8194, 8895, 8999. Up to four hours of STAT 8750.xx may be counted. STAT 7998 and STAT 7999 may not be counted as elective hours for a non-thesis option degree.

*Students may, with approval of the Graduate Studies Committee, count one course (up to 3 hours) from another department as an elective. The course must have appropriate content for a statistics degree, and must not duplicate the material covered in any course available from the Department of Statistics.

Forms

Any student who anticipates obtaining the M.S. degree in the course of his/her academic career should file the departmental M.S. Plan of Study form prior to the student's last term of enrollment. Any subsequent modifications in this Plan of Study will require approval of the Graduate Studies Committee. The student must also submit the online Graduate School Application to Graduate form via GRADFORMS.OSU.EDU by the published deadline of the Graduate School. Please consult the [Graduate School website](#) for details. The Plan of Study form must be submitted prior to the Application to Graduate.

PHD IN STATISTICS PROGRAM

The core of the Ph.D. program consists of course work in mathematical statistics, applied statistics, and computational methods. Students also engage in statistical research, and complete and defend a dissertation. The Ph.D. program in statistics presupposes a mathematical background which includes linear algebra and advanced calculus. The typical time to degree is five years.

Course Requirements (80 credit hours)

<u>Mathematics</u>		Program coursework requires Advanced Calculus, Linear Algebra, and Real Analysis. Stat 6111 and Stat 6112 are recommended; previous coursework or courses in the Math department could also be used to meet this requirement.
<u>Core (36 hours)</u>	6801 (4), 6802 (4) 6950 (4), 6910 (4)	Statistical Theory I & II Applied Statistics I & II
	7201 (3)	Theory of Probability
	7301 (3)	Advanced Statistical Theory
	7302 (3)	Bayesian Analysis and Decision Theory
	7410 (3)	Linear Models
	7541 (3)	Advanced Stochastic Processes
	7730 (3)	Advanced Computational Statistics
	6750 (2)	Statistical Consulting and Collaboration
<u>Electives* (12 hours)</u>		At least 12 credits of letter-graded Statistics at the 6000-level or higher, of which at least 4 credits must be at the 7000-level or higher
<u>Research Topics Seminar</u>	8010 (1)	Students are to enroll in Statistics 8010 in the spring semester of their second year.
<u>Statistics Seminar</u>	8895 (1)	After passing their first year, all students are expected to attend the colloquium on a regular basis. Additionally, such students who have not yet passed the candidacy exam are expected to enroll in STAT 8895 each autumn and spring semester.
<u>Dissertation Research</u>	8999 (3)	After passing the candidacy exam, students are required to enroll in 3 credit hours each autumn and spring semester. Students typically fulfill this requirement by enrolling in 8999 with their advisor.

1. Course Grades – All courses used towards the degree requirements must be taken and passed with a grade

of B- or above in a letter-graded course and with a grade of S in a S/U course. Note that all graduate students are required to maintain a cumulative GPA of at least 3.0 both overall and in their statistics courses in order to remain in good standing.

2. Exams – The student must pass all examinations as described below.
3. Credit Hours – The student must satisfy university rules on residency and total credit hours. A minimum of 80 credit hours is required, which typically includes a considerable number of hours of STAT 8998 and STAT 8999 (Ph.D. Research). A minimum of 50 credit hours is required for students with a master's degree. If a student gets approval to skip courses (e.g., if a student skips the first year courses and begins in the second year), they must still meet these credit hour requirements; the difference may be made up through reading courses or electives (or a combination).

Students in the Ph.D. program are subject to the policies set forth by the Graduate School. See the [Graduate School Handbook](#) for details.

Sample Ph.D. in Statistics Course Program

Two sample programs (for students on the standard track and for students coming in with advanced background at the Master's level) are presented below. Personalized tracks may also be developed with the vice chair for graduate studies.

(Courses are typically only offered in the terms in which they are listed in the sample program below. Individual electives are not offered on a regular basis. See [Buckeyelink](#) for details on previous/current offerings and enrollment requirements, including prerequisites. Note that offerings are subject to change. Refer to the [Courses page](#) on our department website for additional information.)

Sample program (standard track):

<u>First Year (22)</u>	Autumn	Spring
	6801 (4)	6802 (4)
	6950 (4)	6910 (4)
	6111 (3)	6112 (3)
<u>Second Year (21)</u>	Autumn	Spring
	7201 (3)	7302 (3)
	7301 (3)	7541 (3)
	7410 (3)	7730 (3)
	8895 (1)	8010 (1)
		8895 (1)
<u>Third Year (14-19)</u> (select advisor)	Autumn	Spring
	6750 (2)	8895 (1)
	8895 (1)	Elective
	Elective	Elective
	Elective	Elective
<u>Fourth Year* (12-17)</u>	Autumn	Spring
	8998 (8-13)	8895 (1)
	8895 (1)	8999 (2)

<u>Fifth Year (6)</u>	Autumn	Spring
	8895 (1)	8895 (1)
	8999 (2)	8999 (2)

* Assuming student takes candidacy exam at the end of Autumn of their Fourth Year

Sample program (accelerated track, assuming previous Master's Degree)

<u>First Year (21)</u>	Autumn	Spring
	7201 (3)	7302 (3)
	7301 (3)	7541 (3)
	7410 (3)	7730 (3)
	8895 (1)	8010 (1)
		8895 (1)

<u>Second Year (14-19)</u> <u>(select advisor)</u>	Autumn	Spring
	6750 (2)	8895 (1)
	8895 (1)	Elective
	Elective	Elective
	Elective	Elective

<u>Third Year* (11)</u>	Autumn	Spring
	8998 (7)	8895 (1)
	8895 (1)	8999 (2)

<u>Fourth Year (6)</u>	Autumn	Spring
	8895 (1)	8895 (1)
	8999 (2)	8999 (2)

* Assuming student takes candidacy exam at the end of Autumn of their Third Year

***Notes on the Elective Requirement:**

Excludes STAT 6030, 6040, 6111, 6112, 6193, 6194, 6201, 6301, 6302, 6410, 6450, 6540, 6740, 6750, 7193, 7194, 7998, 7999, 8010, 8193, 8194, 8891, 8895, 8998 and 8999.

To ensure that students acquire a broad background in many areas of Statistics, at most one course from each of the following pairs of courses can be counted towards the 12-credit hour elective requirement:

- 6500; 7620
- 6530; 8530
- 6550; 7550
- 6560; 7560
- 6605; 7605
- 6610; 7610
- 6650; 7430

Students may, with approval of the Graduate Studies Committee, use up to two courses (up to 6 hours) from other departments as electives. These courses must be approved by the Graduate Studies Committee, must have appropriate content for a statistics degree, and must not duplicate the material covered in any course available from the Department of Statistics.

If a course is taken from another department and the course is cross-listed in statistics as an appropriate elective, the course may be applied towards elective requirements without special approval of the Graduate

Studies Committee. The course will be counted at the level of the cross-listed statistics course (ex: PUBHBIO 7215 cross-listed as STAT 6615 counts as a 6000 level elective).

STAT 8410 and up to four hours of STAT 8750.xx may be counted toward the degree requirements as electives.

Examinations and Progress

Note on all exams: Students are expected to take exams on the usual schedule as they complete course work in order for funding (if applicable) to continue. None of these examinations may be taken more than twice. See the [Graduate School website](#) for details on examination requirements.

Math Placement Exam: This online examination should be taken in the summer before the first year. It is a self-paced exam that will lead to a recommendation about what courses to take to meet the Mathematics requirement.

M.S. Exam: This written examination covers material from the first year of course work (i.e., 6801, 6802, 6950, 6910). The exam is offered in May and a second offering is given in August if at least one student who failed the first offering wishes to retake the exam. Students who take these courses in their first year are expected to take the exam in May, and are also expected to request and take the subsequent August offering in the event of a failure on the May exam, as part of maintaining reasonable progress toward their degree. *Students who enter the program with more advanced training and wish to skip the first year of coursework (i.e., pursue the accelerated track) should take this exam at the start of their first year. Note: In general this exam may only be taken twice; however, if a student chooses to attempt the exam before their first year in order to place into the second year of courses, they may petition to take the exam a third time in the event that they fail their initial attempt and also the attempt in May of their first year.*

Ph.D. Qualifier: This is a comprehensive written examination testing knowledge acquired in the first two years of study and the ability to integrate and apply such knowledge. The exam will cover material from the first two years of course work in the standard track and may not be attempted until the M.S. Exam has been passed at a high level. It is offered in August and a second offering is given in January if at least two students who failed the first offering wish to retake the exam. To remain in the Ph.D. program, all standard track second year Ph.D. students are expected to take the August offering of the Ph.D. Qualifier Exam immediately following their second year and are also expected to request and take the next possible subsequent offering in the event of a failure on the August exam. To remain in the Ph.D. program, all accelerated track second year Ph.D. students are expected to take the August offering of the Ph.D. Qualifier Exam immediately following their first year and are also expected to request and take the next possible subsequent offering in the event of a failure on the August exam.

Candidacy Exam: After passing the Ph.D. Qualifier, the student chooses a dissertation advisor, who must be a Category P graduate faculty member in statistics. (Prior to passing the Ph.D. Qualifier, the Graduate Studies Chair serves as the advisor). The advisor should be chosen within one year of passing the Ph.D. Qualifier. After the dissertation advisor is chosen, the student also forms a Ph.D. Candidacy Examination Committee, consisting of at least four graduate faculty members from the statistics department or other departments consistent with the student's interests. This committee is responsible for approving a Plan of Study form to be filed with the Graduate Studies Committee prior to submitting the Application for Candidacy form.

After completion of all required courses (as specified by the student's Ph.D. Candidacy Examination Committee), the candidate's Ph.D. Candidacy Examination Committee will administer and grade a Ph.D. Candidacy Examination. The candidacy examination should normally be completed by the end of the student's fourth year. The examination consists of two parts. A written portion covers material on some area in the statistical literature as agreed upon by the student and the Examination Committee. This portion will be administered within two years of the student's passing the Ph.D. Qualifier and will discuss open research topics in this area and possible research methodology for solving these problems. This portion will ordinarily be a dissertation proposal, but the student is not obliged to follow through with a dissertation in this area, and

the examination need not be repeated if the dissertation topic is changed at a later date. After the Examination Committee accepts the written portion, they will administer a two-hour oral examination over this material. The student has two weeks to complete the written portion of the exam. The oral exam is scheduled at least two weeks after the due date for the written portion of the exam. The student must submit an Application for Candidacy form to the Graduate School via GRADFORMS.OSU.EDU and have the form approved at least two weeks before the proposed date of the oral portion of the candidacy exam.

Final Examination and Dissertation: After passing the Candidacy Exam, the student should form a Dissertation Committee. The dissertation committee is composed of the advisor who must be a Category P Graduate Faculty member in statistics and at least two other Graduate Faculty members. Once the student has made sufficient progress (as judged by the Ph.D. Dissertation Committee) on his/her Ph.D. dissertation to warrant holding the Final Oral Examination (dissertation defense), the student will submit the online Graduate School Application to Graduate form via GRADFORMS.OSU.EDU by the Graduate School deadline (see the [Graduate School website](#) for details) and schedule the Final Examination. Before a defense can be held, the student must submit a complete, word-processed dissertation draft to the dissertation committee and the Graduate School for review and approval or disapproval. See the [Graduate School website](#) for details on document preparation and format review requirements. The student must also submit the online Application for Final Examination form via GRADFORMS.OSU.EDU and have the form approved at least two weeks prior to the actual oral defense date. The Ph.D. Dissertation Committee then conducts a two-hour oral examination in which the candidate discusses/defends his/her dissertation. The dissertation document must be submitted and approved by the published Graduate School deadline. See the [Graduate School website](#) for details on final submission requirements.

INTERDISCIPLINARY PHD PROGRAM IN BIOSTATISTICS

The basic philosophy of the Interdisciplinary PhD program in Biostatistics is to provide educated and trained personnel to the academic biostatistics community, including academia, industry, and government. The goal is to develop a student's ability to create new methodologies as well as address applied questions that arise from the biomedical sciences and public health.

The Interdisciplinary PhD program in Biostatistics is a joint venture between The Ohio State University [Department of Statistics](#) and the Division of Biostatistics in the [College of Public Health](#). Students in this program choose between one of two specializations: Methodology and Public Health. Both specializations require a core curriculum in theoretical and applied statistics; the Methodology specialization has a particular emphasis on biomedical sciences applications, while the Public Health specialization has a particular emphasis on public health applications.

Complete information about advising, the program requirements, suggested plan of study, and associated forms is at <http://biostatprograms.osu.edu/>.

All students are expected to be familiar with the [Graduate School Handbook](#) as all graduate students are subject to the policies set forth by the Graduate School.

GRADUATE MINOR IN STATISTICAL DATA ANALYSIS PROGRAM

Prerequisites: High school-level algebra

Course Requirements

A grade of B or better or S in each course comprising the graduate minor is required per [Section 8.4 of the Graduate School Handbook](#).

<u>Required</u>	5301 (4) 5302 (3)	Intermediate Data Analysis I Intermediate Data Analysis II
<u>Electives</u> (5 hours)	At least 5 additional credit hours at the 6000-level (from among courses in Group A). Courses at the 6000-level from Group B or courses at a higher level can be substituted as an alternative with appropriate permission.	
<u>Group A Electives</u>	6510 (3) 6610 (3) 6620 (2) 6640 (3) 6650 (2) 6615 (2)	Survey Sampling Methods Applied Nonparametric Statistics Environmental Statistics Principles of Statistical Quality Control Discrete Data Analysis Design and Analysis of Clinical Trials
<u>Group B Electives</u> (permission required to use these toward minor requirements)	6520 (3) 6530 (2) 6540 (3) 6550 (2) 6560 (3) 6570 (2) 6605 (3) 6690 (1-5)	Applied Statistical Analysis with Missing Data Introduction to Spatial Statistics Applied Stochastic Processes Statistical Analysis of Time Series Applied Multivariate Analysis Applied Bayesian Analysis Applied Survival Analysis Graduate Topics in Statistics

Sample Graduate Minor in Statistical Data Analysis Program

	Autumn	Spring
Year 1	5301	5302
Year 2	Elective	Elective

(STAT 5301 and 5302 are typically offered every autumn and spring semesters. Electives are not offered on a regular basis and may have prerequisites to enroll. Plan course projection accordingly. See [Buckeyelink](#) for details on previous/current offerings and enrollment requirements, including prerequisites. Note that offerings are subject to change. Refer to the [Courses page](#) on our department website for additional information.)

GRADUATE MINOR IN STATISTICS PROGRAM

Prerequisites: College-level Linear Algebra (Math 2568.01) and Calculus (Math 2153.XX)

Course Requirements

A grade of B or better or S in each course comprising the graduate minor is required per [Section 8.4 of the Graduate School Handbook](#).

<u>Required</u>	6201 (4) 6410 (4) 6450 (4)	Introduction to Probability and Mathematical Statistics Design and Analysis of Experiments Applied Regression Analysis
<u>Electives</u> (2 hours)	At least 2 additional credit hours at the 6000-level from among the courses listed below. Higher level courses can be substituted as an alternative with appropriate permission.	
<u>Approved</u> <u>Electives</u>	6510 (3) 6520 (3) 6530 (2) 6540 (3) 6550 (2) 6560 (3) 6570 (2) 6605 (3) 6610 (3) 6615 (2) 6620 (2) 6640 (3) 6650 (2) 6690 (1-5) 6730 (2)	Survey Sampling Methods Applied Statistical Analysis with Missing Data Introduction to Spatial Statistics Applied Stochastic Processes Statistical Analysis of Time Series Applied Multivariate Analysis Applied Bayesian Analysis Applied Survival Analysis Applied Nonparametric Statistics Design and Analysis of Clinical Trials Environmental Statistics Principles of Statistical Quality Control Discrete Data Analysis Graduate topics in Statistics Introduction to Computational Statistics

Sample Graduate Minor in Statistics Program

	Autumn	Spring
Year 1	6201	6410
Year 2	6450	Elective

(The following includes the typical offerings of the required courses for the minor: STAT 6201(AU), 6410 (SP), 6450 (AU, SP). Electives are not offered on a regular basis and may have prerequisites to enroll. Plan course projection accordingly. See [Buckeyelink](#) for details on previous/current offerings and enrollment requirements, including prerequisites. Note that offerings are subject to change. Refer to the [Courses page](#) on our department website for additional information.)

DISMISSAL AND APPEAL

The Graduate School at the Ohio State University Graduate School has the following [guidelines](#) on academic probation and dismissal procedures and on disciplinary dismissal:

Poor Academic Performance: A full-time student with fewer than nine earned hours or whose cGPA is below 3.0 after nine graduate credit hours will receive a warning letter from the Graduate School urging consultation with the advisor and graduate studies committee. A student enrolled in a graduate certificate program ([Section 8.3](#)) whose graduate cGPA falls below 3.0 after three graduate credit hours have been attempted will receive a similar warning letter from the Graduate School.

Remediation: A student whose graduate cGPA is below 3.0 after nine graduate credit hours have been attempted will, in close consultation with their advisor, Graduate Studies Committee and the Graduate School, enter into a remediation plan for one autumn or spring semester or summer term. The remediation plan would be aimed at increasing the student's cGPA to a 3.0 or better. Remediation is not available to graduate non-degree students.

Probation. Students who do not improve their graduate cGPA after a remediation plan has been attempted will be placed on academic probation for one semester by the Graduate School. A student who is on probation in the Graduate School may not be appointed or reappointed as a graduate associate ([Section 9](#)) or a graduate fellow or trainee ([Section 10](#)).

Removal from Probation: A student who raises the graduate cGPA to 3.0 or better is removed from probation by the Graduate School. Course work used in raising the cGPA must be a part of normal degree requirements and approved by the Graduate Studies Committee. An international student who is on probation upon admission to an international cooperative graduate degree agreement (ICGDA) program is removed from probation upon meeting the conditions stated in the ICGDA.

Warning of Potential Academic Dismissal: A student on a remediation plan or on academic probation whose record continues to deteriorate will be warned that academic dismissal is likely if the record does not improve. Warnings include performance criteria tailored to the individual student, usually in consultation with the Graduate Studies Committee Chair.

Academic dismissal: A student who is on probation and who does not raise the graduate cGPA to 3.0 or better at the end of the probation period may be dismissed from the university at the discretion of the Graduate School following consultation with the student's Graduate Studies Committee Chair.

Doctoral Students: A doctoral student who has had two unsatisfactory attempts at the candidacy examination or the final oral examination or professional doctoral examination is automatically dismissed from the Graduate School. (See for additional information.)

Disciplinary dismissal: As academic dismissal is tied to a student's academic performance, it is distinct from disciplinary dismissal. Students enrolled at the university are required to follow all established policies and procedures regarding student behavior including, but not limited to, the [Code of Student Conduct](#), the [University Policies and Procedures on Research Misconduct](#), and [Appendix C](#) of this Handbook. Those students found to have violated university policy (e.g., prohibitions against academic and non-academic misconduct) may be subject to sanction, including disciplinary dismissal from the university. As with academic dismissal, disciplinary dismissal will be noted on a student's permanent record. Unlike an academic dismissal, students dismissed for disciplinary reasons are ineligible to return to the university.

A student who receives a dismissal letter from the Graduate School could appeal following the [process](#) within five business days from the date on the outcome letter.

In addition, a student who fails the MAS, Qualifier I or Qualifier II examination twice but believes the exam performance was substantially affected by a serious illness or a major family crisis could appeal for a third attempt at the examination, by submitting an appeal letter to the Graduate Studies Chair within five business days of receiving the examination result. The appeal will then be reviewed by the Graduate studies Committee.

GRADUATE STUDENT GRIEVANCES

When concerns arise or persist, the graduate student ombudsperson is an impartial resource that can help graduate students explore options in resolving their concerns. Generally, graduate students should aim to address and resolve concerns within their department. Graduate students are encouraged to discuss concerns with their advisor first. If concerns remain, graduate students should then reach out to the program graduate studies chair. Further unresolved concerns should be communicated to the department chair. If the concerns cannot be resolved internally within the department, the graduate student is encouraged to contact the assistant dean for graduate studies within the College of Arts and Sciences. In situations where the student believes the issue has not been resolved within the College, they can request further review from the Graduate School.