

TEACHING ASSISTANT HANDBOOK

2019-2020

DEPARTMENT OF MATHEMATICS, STATISTICS, AND
COMPUTER SCIENCE

at the

UNIVERSITY OF ILLINOIS AT CHICAGO

www.math.uic.edu/gradstudies

Teaching Assignments

Teaching assignments are made by the Graduate Studies Office and are based on the TA's course schedule and the needs of the Department. TAs submit a schedule form each term, outlining their course schedule, courses previously taught, and courses they wish to teach. The [MSCS Graduate Student Schedule Form](#) can be accessed from the MSCS Graduate Studies website, or by clicking on the previous link.

The primary contact and supervisor for your teaching assignment is the professor teaching the course. If any issues arise in the TA's classroom, the TA should inform the professor, and if necessary the professor will notify the Associate Head for Instruction and the Director of Graduate Studies.

TA Responsibilities

TA Contract: The TA appointment period for the academic year is from August 16 - May 15. TAs are responsible for staying through the appointment and grading the final exam. *Requests to arrive late or leave early are not approved.*

Teaching Load: Each academic year, each TA is assigned 2 twice-weekly one-hour discussion sections (4 weekly contact hours) in one term, and 3 discussion sections (6 weekly contact hours) the other term.

Individual Duties:

- **Discussion Sections:** Before the term begins, TAs should log onto the online class schedule (www.my.uic.edu) to view the sections, rooms, and times that they are teaching.
- **Preparation:** TAs should prepare adequate and relevant problems and examples to present if students do not have questions. ***TAs are encouraged to observe lectures when possible, and asked to do so at least once a week.***
- **Contact Your Professor:** As outlined above, the professor teaching the course is the primary contact for each TA. On the online class schedule, grad students can view the professor for which they are a TA. TAs are responsible for keeping in email contact with the professor regarding dates and deadlines, student needs, grades, etc.
- **Grading:** TAs are responsible for administering and grading quizzes, exams, and homework, and keeping an accurate log of grades. TAs must consult with the course professor for specifics.
- **Office Hours:** TAs are assigned regular hours (2 hours per week most semesters) in the [Mathematical Sciences Learning Center](#). TAs must notify their students of their hours and the location (SEO 430). During these times, they are responsible for helping all students in the MSLC, not just their students. Specifics regarding the MSLC should be directed to the Director of the MSLC, Danielle Liubicich

Teaching Techniques: TAs should consult the professor teaching the course. TAs are also encouraged to consult the TA Coordinator (TAC), an experienced fellow TA designated to serve this role each term. First-year graduate students will also learn teaching techniques in Math 589, a mandatory first-year, first-term course for incoming graduate students. This is independent of prior teaching experience, as an instructor that can master and examine different teaching styles will be more effective.

Avoiding Sexual Harassment

Teaching Assistants are in a position of authority over their students, and therefore it is essential that they protect themselves against claims of sexual harassment and conflict of interest by avoiding social or personal involvement with their students. It is very important for University employees -- in particular TAs -- to understand what constitutes sexual harassment and what to do if they become aware of it. TAs are responsible for understanding the University's policy on sexual harassment viewable on the Office of Access and Equity's website at <http://oae.uic.edu/UnlawfulDiscrimination/SexualHarassment.htm>.

Claims of sexual harassment are time consuming and stressful to resolve. TAs should pay particular attention to these guidelines in an effort to avoid claims of sexual harassment. Claims of and questions about sexual harassment should be reported immediately to the Directors of Graduate and Undergraduate Studies.

To avoid social and personal involvement with students, refrain from dating, touching, personally complimenting, or going to parties with students. Do not provide students with your cell phone number, and make email correspondence with the entire class, not individual students, whenever possible.

Preventing Cheating

To prevent cheating, observe the following.

- Never leave exams unattended.
- Before proctoring, announce that students must remove all books and paper from their desks. Announce that cell phone use and talking is prohibited during the exam.
- Check ID cards carefully as the students hand in the finished exam. Announce this procedure before the exam begins.
- To prevent students from looking at their neighbor's paper, it is necessary to seat them every-other-seat and every-other-row. If this is not possible, it will be necessary to make two versions of the exam and stack them alternately before handing out. Consult with the professor and make all necessary preparations beforehand.

Confronting and Reporting Cheating

If the professor is in the room when the cheating occurs, report it to the professor. Otherwise, follow these procedures.

Example 1: You see a student talking during the exam.

Procedure: Tell the student firmly that talking is not permitted. If the student continues to talk, move the student to the front of the room away from other students. If the student refuses to move, take the student's exam and tell the student to leave the room. Note the time and reason the exam was confiscated directly on the exam paper. Immediately report the incident to the professor and to the Assistant Director of Undergraduate Studies.

Example 2: You see a student using a cheat sheet or copying from another student during the exam.

Procedure: Immediately collect the exam and the cheat sheet. If possible, staple these two together. Tell the student to leave the room and report to the [Counseling Center](#) in Suite 2010 SSB to learn about their rights in a cheating offense. Note the time and reason the exam was confiscated directly on the exam paper. Immediately report the incident to the professor and the Assistant Director of Undergraduate Studies.

Example 3: While grading the exam, you discover two exams with exactly the same wrong answer.

Procedure: Consult with the professor. Make copies of both exams; keep the original and return the copies to the students. Immediately report the problem to the professor and to the Assistant Director of Undergraduate Studies. If the students ask why they did not receive their original exam back, instruct them to go to SSB to learn about their rights in a cheating offense and to make an appointment with the professor or the Assistant Director of Undergraduate Studies.

Services for Students with Disabilities

The University is committed to providing reasonable accommodations for students with documented disabilities as defined by the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. As a TA you may have students in your class who present a note requesting accommodations for a disability.

A student must first request approval for accommodations for a disability by contacting the [Disability Resource Center](#) located in room 1190 SSB. The Disability Resource Center is a campus resource that provides academic assistance, advocacy, counseling, and information and referral to students with documented disabilities. Reasonable accommodations are made for students with disabilities on an

individual and flexible basis. These accommodations may take many forms such as sign language interpreters, readers, course or exam modifications, or note takers, to name a few.

It is the responsibility of the student to seek assistance and request accommodations through the Disability Resource Center. Students who have received approval for classroom accommodations will present a note from the Disability Resource Center identifying the accommodation that must be made in the classroom by the instructor and/or TA. Any questions regarding the accommodations that need to be made for this student can be clarified by contacting the Disability Resource Center (1190 SSB or 312-413-2183). In addition, make the Director for Undergraduate Studies aware of the situation.

About your Work Supervisor

The discussions sections that you are leading are attached to a large lecture course taught by a professor. This professor serves as your "work supervisor" and is responsible for making sure that the TA meets the needs of the course and the students. Failure to meet the requirements of the TA assignment, complaints from the professor, or complaints from students will be reported to the Associate Head for Instruction who will address these concerns.

As your Work Supervisor, the Professor will:

- Oversee and assist in designing, proctoring, and grading exams, quizzes, and homework.
- Assign exam grades and report the final course grades.
- Review with the TA all policies and procedures relevant to classroom cheating, test security, and student records.
- Maintain weekly contact with their TAs to communicate course progress and current responsibilities, and to discuss any course related problems.
- Visit the TA's classroom at least once per semester to evaluate the TA. The evaluation will be discussed with the TA and kept in the TA's employment file.
- Maintain all student records.
- Address student complaints and keep the Associate Head for Instruction aware of any problems with the TA's performance.

Class Absence

TAs are required to perform their duties and to remain on campus from the first day of the term through the grading of the final exam. If at any time the TA is unable to teach or attend assigned hours in the MSLC, it is the TA's responsibility to contact another TA to substitute and cover these responsibilities, and to receive approval from the professor and Associate Head of Instruction before the substitution occurs. If the TA cannot find a substitute, the TA is ultimately responsible and must teach.

Only TAs currently employed by MSCS can serve as a substitute for another TA. TAs are encouraged to contact a TA who is teaching the *same* course with the *same* professor, if possible. No exchange of money may occur; instead, the TA should "return the favor" at a later date.

Obtain the contact information of other TAs teaching the same course to prepare for last minute emergencies. TAs arranging for an emergency substitute in case of illness or an accident should contact these fellow TAs. If this is unsuccessful and the TA is unable to teach, ***call the main office at 312-996-3041***, and can arrange to have a note posted on the door or blackboard to notify the students.

TA Evaluations

The Associate Head for Instruction asks professors to visit each class taught by the TA during the term. The professors will complete an evaluation of their TA's progress and discuss the evaluation with the TA. This evaluation helps to identify problems that are usually typical and can be resolved during the course of the term. The Associate Head for Instruction is informed of any serious problems that may occur. In addition, first-year grad student TAs will be visited by a Teaching Assistant Coordinator (TAC), to receive feedback on interactive teaching methods.

TAs are evaluated by their students at the end of each term by the SITS Office (Students for the Improvement of Teaching), and will receive related instruction at the end of the term.

Courses with Discussion Sections led by TAs

MATH 077. Mathematical Reasoning Workshop. 1 hour.

A refresher of the algebra used in MATH 118. A more detailed reminder of algebraic techniques will be given in a student-centered environment with personalized homework and worksheets to address individual needs. Course Information: Satisfactory/Unsatisfactory grading only. No graduation credit. Extensive computer use required. Requires concurrent registration in MATH 118.

Math 088 Intermediate Algebra Workshop. (1 hour) No graduation credit. Individualized lesson plans including: order of operations, properties of real numbers, linear equations, problem solving, graphing linear equations. Course Information: Satisfactory/Unsatisfactory grading only. Extensive computer use required. *Corequisites:* Requires concurrent registration in MATH 090.

Math 090 Intermediate Algebra. (4 hours) Linear equations and inequalities, absolute values, linear graphs and modeling, systems of equations, functions, quadratic equations, exponents and polynomials, factoring, radicals and rational exponents. Course Information: Satisfactory/Unsatisfactory grading only. Not open to students with credit in a mathematics course at or above the 100 level. No graduation credit. Extensive computer use required. Prerequisite(s): Credit or concurrent registration in Math 088; or appropriate score on the department placement test.

Math 109 College Algebra Workshop. (1 hour) A refresher of material prerequisite for and used in MATH 110, including: functions, polynomial and rational equations, graphs and transformations, exponentials and logarithms, trigonometry. Course Information: Satisfactory/Unsatisfactory grading only.

Math 110 College Algebra. (4 hours) No credit if the student has credit in MATH 121 or MATH 165 or MATH 175 or MATH 180. Functions, composition and inverses; graphs and transformations, polynomial and rational functions, exponential functions, logarithms and applications; circles and introduction to trigonometry. To be properly registered, students must enroll in one Lecture and one Laboratory-Discussion. Extensive computer use required. *Prerequisites*: MATH 090; or appropriate score on the department placement test.

Math 118 Mathematical Reasoning. (4 Hours) Mathematical problem solving with a hands-on and learn-by-doing approach, using topics from linear equations, personal finance, geometry, probability, and statistics. Course Information: No credit given if the student has credit in MATH 110 or MATH 121 or MATH 160 or MATH 165 or MATH 170 or MATH 180 or the equivalent. No graduation credit for architecture, business administration, or engineering students. It may serve as a prerequisite for statistics courses in the social sciences. It does not replace MATH 090 as a prerequisite for any other mathematics department course. Prerequisite(s): Credit or concurrent registration in MATH 077; or appropriate score on the department placement test. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Laboratory-Discussion.

Math 121 Precalculus Mathematics. (5 Hours) Functions, graphs, exponentials and logarithms, radicals, complex numbers, trigonometry (circle and triangle approaches), trigonometric graphs and inverses, introduction to polar coordinates and vectors Course Information: No credit will be given for MATH 121 if students have credit in MATH 165 or MATH 170 or MATH 180. Extensive computer use required. Prerequisite(s): Grade of C or better in MATH 110; or appropriate score on the department placement test. Class Schedule Information: During the fall and spring terms, combined section final exam will be held on Thursday of finals week from 6 to 8 p.m. To be properly registered, students must enroll in one Laboratory-Discussion and one Lecture.

Math 122 Emerging Scholars Workshop for Precalculus Mathematics. (1 Hour) Satisfactory/Unsatisfactory grade only. Intensive math workshop for students enrolled in Math 121. Students work together in groups to solve challenging problems. *Prerequisites*: Admission to the Emerging Scholars Program and concurrent registration in designated sections of Math 121.

MATH 125. Elementary Linear Algebra. (5 hours) Introduction to systems of linear equations, matrices and vector spaces, with emphasis on business applications. Course Information: Prerequisite(s): MATH 090; or MATH 110; or appropriate score on the department placement test. Class Schedule Information: To be properly registered, students must enroll in one Lecture and one Discussion. During the fall and spring terms, combined section final exam will be held on Thursday of finals week from 6 to 8 p.m. To be properly registered, students must enroll in one Discussion/Recitation and one Lecture. *Natural World - No Lab course*.

Math 160 Finite Mathematics for Business. (5 Hours) Credit is not given for Mathematics 160 if the student has credit in Mathematics 150. Introduction to probability, statistics, and matrices, with

emphasis on business applications. *Prerequisite:* Math 090, or Grade of C or better in MATH 110; or appropriate performance on the department placement test.

Math 165 Calculus for Business. (5 Hours) Credit is not given for Mathematics 165 if the student has credit in Mathematics 180. Introduction to differential calculus of algebraic, exponential, and logarithmic functions and techniques of partial derivatives and optimization. Emphasis on business applications. *Prerequisite:* Grade of C or better in Math 110; or appropriate performance on the department placement test.

MATH 170. Calculus for the Life Sciences. (4 hours)

Introduction to calculus with applications to the life sciences, mathematical modeling, differentiation, integration and applications. Course Information: Credit is not given for MATH 170 if the student has credit for MATH 165 or MATH 180. *Prerequisite(s):* Grade of C or better in MATH 110 or Grade of C or better in MATH 121; or appropriate score on the department placement test.

Math 179 Emerging Scholars Workshop for Calculus I. (1 Hour) Satisfactory/Unsatisfactory grade only. Intensive math workshop for students enrolled in Math 180. Students work together in groups to solve challenging problems. *Prerequisite:* Admission to the Emerging Scholars Program and concurrent registration in designated sections of Math 180.

Math 180 Calculus I. (5 Hours) Credit is not given for Mathematics 180 if the student has credit in Mathematics 165. Differentiation, curve sketching, maximum-minimum problems, related rates, mean-value theorem, antiderivative, Riemann integral, logarithm, and exponential functions. *Prerequisite:* Grade of C or better in Math 121 or appropriate performance on the department placement test.

Math 181 Calculus II. (4 Hours) Techniques of integration, arc length, solids of revolution, applications, polar coordinates, parametric equations, infinite sequences and series, power series. *Prerequisite:* Grade of C or better in Math 180.

Math 182 Emerging Scholars Workshop for Calculus II. (1 Hour) Satisfactory/Unsatisfactory grade only. Intensive math workshop for students enrolled in Math 181. Students work together in groups to solve challenging problems. *Prerequisite:* Admission to the Emerging Scholars Program and concurrent registration in designated sections of Math 181.

MATH 194. Special Topics in Mathematics. 1-4 hours.

Course content is announced prior to each term in which it is given. Course Information: May be repeated. *Prerequisite(s):* Approval of the department.

Math 210 Calculus III. (3 Hours) Vectors in the plane and space, vector valued functions, functions of several variables, partial differentiation, maximum-minimum problems, double and triple integrals, applications, Green's theorem. Three hours of lecture-discussion and one hour of laboratory per week. *Prerequisite:* Grade of C or better in Math 181.

Math 211 Emerging Scholars Workshop for Calculus III. (1 Hour) Satisfactory/Unsatisfactory grade only. Intensive math workshop for students enrolled in Math 210. Students work together in groups to solve challenging problems. *Prerequisite:* Admission to the Emerging Scholars Program and concurrent registration in Math 210.

Math 220 Introduction to Differential Equations. (3 Hours) Techniques and applications of differential equations. First order equations, separable, exact, and linear. Linear second order equations, Laplace transforms and series solutions. *Prerequisite:* Grade of C or better in Math 210.

MCS 260 Introduction to Computer Science. (4 Hours) Computer literacy, number systems, concepts of operation systems, storage, files, databases, logic gates, circuits, networks, internet. Introduction to programming in Python, variables, assignments, functions, objects. *Prerequisite:* Credit or concurrent registration in Math 180.

MCS 275 Programming Tools and File Management. (4 Hours) Theory, techniques, and tools of the Python programming language, with applications to data structures, algorithms, web programming, and selected topics. *Prerequisite:* Grade of C or better in MCS 260 and Math 180.

MCS 360 Introduction to Data Structures. (4 Hours) Pointers and dynamic memory allocation in C/C++, recursion, stacks, queues, heaps, binary and multi-way trees, graphs, hash tables. Sorting and searching algorithms. *Prerequisite:* Grade of C or better in MCS 261 and 275.

STAT 101 Introduction to Statistics. (4 Hours) Applications of statistics in the real world, displaying and describing data, normal curve, regression, probability, statistical inference, confidence intervals and hypothesis tests. *Prerequisite:* Satisfactory grade in MATH 090, or appropriate score on the Department placement test.

Stat 130 Introduction to Statistics for the Life Sciences. (4 hours) No credit if the student has credit for STAT 101. Basic concepts and methods of statistics with illustrations from different areas of the life sciences; graphical and summary representations, probability, random variables, normal distribution, estimation and tests of hypotheses, t, F and chi-square. Extensive computer use required. *Prerequisites:* Grade of C or better in MATH 110; or Grade of C or better in MATH 121; or appropriate score on the department placement test.

TEACHING ASSISTANT RELATED TRAININGS

PROTECTION OF MINORS - AN CRA TRAINING:

https://www.hr.uic.edu/protection_of_minors/

UIC DISCRIMINATION AND SEXUAL HARASSMENT PREVENTION POLICIES:

<http://oae.uic.edu/UnlawfulDiscrimination/Policies.htm>

UIC STUDENT RECORDS POLICY - FERPA TRAINING

<https://registrar.uic.edu/ferpa/>

