Carnegie Mellon University

Master's Student Handbook

Academic Year 2026 - 2027

Dietrich College of Humanities and Social Sciences

Statistics & Data Science

CMU Online Student Handbook

Applied Data Science

Table of Contents

Section 1: Welcome & Introduction
Section 2: Program Overview
Section 3: Degrees Offered
Section 4: Important Contacts
    Program leadership includes:
    Online Student Support/Advising
Section 5: Resources
    5.1: CMU Online Technical Support
    5.2: Academic Calendar
Section 6: Academic Advising
    6.1: Advisor Role & Resources
    6.3: Review/Redress of Academic Issues
Section 7: Online Graduate Certificates Requirements
    7.2 Registration
        7.2.1: Registration Process
        7.2.2 Audit Policy
    7.3: Required Units for Certificate
    7.4: Required Courses
    7.4.1 Previously Taken Courses
    7.5: Program Learning Outcomes
    7.8: Policy for Courses Outside the Certificate
    7.10: Transfer Credit
Section 8: Policies & Protocols
    8.1: Program Enrollment Status Changes
        8.1.1: Admission Deferral
        8.1.2: Leave of Absence
        8.1.3 Program Withdrawal
    8.2 Course Enrollment Changes
    8.4 “Grandfather” Policy
    8.6: Other Policies and Protocols
        8.6.1 Statute of Limitations
Section 9: Grading & Evaluation
    9.1: Grading Scale/System
    9.1.1 Course Grade Requirements
    9.2: Policy on Retaking a Course
    9.3: Pass/Fail Policy
    9.4: Incomplete Policy
    9.6: GPA Requirements and QPA Requirements for Completion
    9.7: Satisfactory Academic Standing
    9.8: Course Failure

Section 10: Tuition & Scholarships
- 10.1: Scholarship Policy
- 10.3: Course-Related Fees
- 10.11: Tuition Billing & Payment
- 10.12: Sponsored Billing & Third-Party Payments
- 10.13: Student Financial Obligation & Past Due Accounts
- 10.14: Course Drop for Non-Payment

Note - this handbook is based on an Office of Graduate Affairs template. Information that is not applicable to online students has been removed so the numbering may not be sequential.

Section 1: Welcome & Introduction

Welcome to the 2026-2027 academic year! We are excited about the year ahead and look forward to working with you to make your CMU journey a memorable experience.

As a member of the CMU community, you have both rights and responsibilities. This handbook provides important and valuable information for your academic experience at Carnegie Mellon University. The first part of the handbook covers the academic policies that govern this program. These policies were developed with a goal of fostering an atmosphere of intellectual growth and discovery. They are intended to both support your academic experience and maintain the integrity of the program. The second part of the handbook provides details of CMU policies and procedures relating to the graduate student experience. These policies apply to all graduate students at CMU and are designed to support your CMU experience.

Please read this handbook carefully. You should be familiar with the contents of this handbook and use it as a first resource for academic questions or concerns that may arise during the academic year. Your program specialist can help you if you have any questions about any portion of this handbook.

While this handbook is specific to your academic experience in the department, it is just one element of the Graduate Student Handbook Suite. There are several other resources within the suite that you should consult when needed:

- University-Wide Graduate Student Handbook (Office of Graduate & Postdoctoral Affairs)
- Carnegie Mellon Student Handbook

We wish you an exciting and successful academic year!

Rebecca Nugent
Fienberg Professor of Statistics & Data Science, Department Head

Section 2: Program Overview

The volume and complexity of data has exploded in recent years, creating new challenges for organizations that want to leverage its power. To stay competitive, organizations need a mixture of data analysts and non-technical leaders who can understand the foundations of data science to collaborate effectively on how to apply it across the organization.

This emphasis on data literacy reveals a promising opportunity for professionals in every department in nearly every industry: with fundamental skills in data science, professionals can make more data-informed decisions and lead with confidence to help their teams (and ultimately, their companies) achieve goals and reach targets more efficiently.

You don't need a technical background to think like a data scientist. You just need the right education and support. After completing the certificate in Applied of Data Science, you, professionals from all backgrounds (both technical and non-technical), should be able to unlock the power of data through graduate-level, credit-bearing coursework taught by expert CMU professors.

Section 3: Degrees Offered

Online Graduate Certificates

- Applied of Data Science

Section 4: Important Contacts

The Applied of Data Science program is housed in the Statistics & Data Science Department in the Dietrich College of Humanities and Social Sciences.

Program leadership includes:

- Rebecca Nugent, Fienberg Professor of Statistics & Data Science, Dept. Head, Statistics & Data Science Department
- Jamie McGovern, Special Faculty, Director of the Master of Science in Applied Data Science Program
- Samantha Nielsen, Associate Director for Academic Programs and Alumni Partnerships

Online Student Support/Advising

In addition, your program specialist is also your primary advisor and your first point of contact for all program-related questions. If they cannot assist you, they will refer you to the appropriate department or individual.

- Abby Palm, Program Specialist, apalm@andrew.cmu.edu, +1 412-501-2142

Section 5: Resources

5.1: CMU Online Technical Support

See below for resources should you encounter technical difficulties during the program:

General Technical Issues: Mon - Fri from 9 a.m. - 5 p.m. (ET)

Contact your Program Specialist at 412-501-2142 or apply@online.cmu.edu.

First Week of Class: Mon - Thurs from 5:30 p.m. - 8:30 p.m. (ET)

During the first week of class, we will have *extended support* from our CMU Online help desk should you have difficulty accessing a course for the first time.

Email cmuonline-help@andrew.cmu.edu for assistance, and we will respond right away.

Specific Course Related Content

If you have difficulty with course material or content, contact your instructor directly for assistance.

Note that there is no coverage during University Observed Holidays (e.g., Labor Day)

5.2: Academic Calendar

CMU Online follows the university calendar for the fall and spring semesters. For programs with summer classes, CMU Online follows a different calendar than campus, which can be found here.

Section 6: Academic Advising

6.1: Advisor Role & Resources

Students in online graduate certificates follow a predetermined curriculum with limited options for course planning or changes to the academic program.

In the event that a student is having academic difficulties, they should reach out to the faculty teaching the course to discuss ways to address any challenges they are experiencing in the course.

If they are unable to resolve any academic difficulties after talking to the faculty, they should reach out to their advisor (program specialist) to discuss resources and enrollment options available to them (course drop, leave of absence, withdrawal).

Finally, if a student has any other questions about the program, they should contact their advisor (program specialist), who can assist or refer to the appropriate resource.

6.3: Review/Redress of Academic Issues

In the event that a student is seeking resolution for a grade, academic action, disciplinary action, community standards violation, misconduct, suspension, required withdrawal, or general

grievances, students should follow the policies found in the university-wide graduate student handbook.

Generally, graduate students are expected to seek informal resolution of all concerns within the applicable department, unit, or program before invoking formal processes. When an informal resolution cannot be reached, however, a graduate student who seeks further review of the matter is to follow these formal procedures.

Section 7: Online Graduate Certificates Requirements

7.2 Registration

7.2.1: Registration Process

The CMU Online team registers students for their courses. All students enrolled in the online graduate certificate program have a “hold” on their account that precludes self-registration. Any questions regarding registration can be directed to your program specialist.

Not all classes are available every semester. If a required course is not available, the student will need to take a leave of absence to return in the term the course is scheduled.

7.2.2 Audit Policy

Auditing courses is not permitted for graduate certificate students.

7.3: Required Units for Certificate

Students must complete 30 units of required coursework to be eligible for the Applied of Data Science certificate.

7.4: Required Courses

Course	Course #	Pre-Req	Units
Probability & Statistics for Data Science	36-640	N/A	6
Gaining Insights through Statistical Modeling and Machine Learning	36-641	36-640	6
Telling Impactful Stories with Data Visualization	36-642	N/A	6
Introduction to Data Science Computing Workflows	36-643	N/A	6
Applications of Real-World Data Science: A Capstone Experience	36-644	All previous courses	6

7.4.1 Previously Taken Courses

Students who have previously completed courses that are part of the certificate requirements must either retake or, when possible, take an alternative course in its place in order to earn a minimum of 24 units to earn the certificate.

7.5: Program Learning Outcomes

Students who successfully complete the certificate in Applied of Data Science will have the skills and competencies to:

1. Successfully structure basic data pipelines using a modern coding language.
2. Describe and apply concepts related to randomness, noise, uncertainty, and variation.
3. Perform exploratory data analysis via standard statistical graphics and visualizations; tell stories with data through building and interpreting visualizations.
4. Build, validate, and interpret statistical models and machine learning algorithms.
5. Formulate a business/research question that could be answered through the use and analysis of data.
6. Apply these tools and data-related best practices in ethics and communication to real world data science problems through open-ended projects.

7.8: Policy for Courses Outside the Certificate

Students enrolled in the online graduate certificates are only permitted to take the courses associated with the certificate(s) they have been admitted to and in which they are enrolled.

7.10: Transfer Credit

Transfer credit is not allowed for online graduate certificate programs.

Section 8: Policies & Protocols

8.1: Program Enrollment Status Changes

8.1.1: Admission Deferral

Students may defer their admission for up to three semesters (or one calendar year). For example, if a student is admitted for Fall 2026, they may defer up to Fall 2027. If they do not enroll within three semesters, students need to reapply.

8.1.2: Leave of Absence

Students in the online graduate certificate program take a “pause” instead of a leave of absence. Both are taken when a student needs to leave the University temporarily, with the firm and stated intention of returning.

Students should discuss their plans to leave the University with their program specialist, who will

refer them to the appropriate resource to develop a plan for completion.

A leave of absence can be taken for up to two consecutive semesters. If a student does not return by the start of the third consecutive semester, they will be automatically withdrawn from the program.

Not all courses are available every semester. If an eligible course is not offered when the student intends to return, then the leave will be extended until an eligible course is available. However, if the student does not return when an eligible course is available, and more than two semesters of leave have passed, the student will be withdrawn from the program.

Students who are automatically withdrawn and wish to return to the program in the future must reapply and will be considered under the current admissions and scholarship policies.

University policy on leaves: https://www.cmu.edu/hub/registrar/leaves-and-withdrawals/

8.1.3 Program Withdrawal

Students may withdraw from the program at any time by notifying their program specialist in writing. If enrolled in a course, they will be subject to the course withdrawal and tuition adjustment policies.

University policy on withdrawal: https://www.cmu.edu/hub/registrar/leaves-and-withdrawals/

8.2 Course Enrollment Changes

Students taking graduate-level courses must follow the procedures and deadlines for adding, dropping, or withdrawing from courses as identified on the academic calendar.

Students considering dropping, adding, or withdrawing from courses should contact their program specialist.

Note: Certificate-only students are not eligible for course vouchers.

University policy on course enrollment:
https://www.cmu.edu/hub/registrar/course-changes/index.html

8.4 “Grandfather” Policy

When policies change because the department believes new rules offer an improvement; changes that affect currently enrolled students will be communicated.

Currently enrolled students impacted by a change in policy may choose to be governed by the older policy that was in place at the time of their matriculation.

Should certificate requirements change and certain courses no longer be offered, the department will find alternative courses that allow those students to satisfy the original requirements.

8.6: Other Policies and Protocols

8.6.1 Statute of Limitations

Students must complete all requirements for a graduate certificate within nine semesters (Fall, Spring, Summer) of first enrolling in the certificate program.

Under extraordinary circumstances, such as leave of absence, military or public service, family or parental leave, or temporary disability, a school or college may, upon the relevant department's recommendation and with the written approval of the dean (or designate), defer the lapse for a period commensurate with the duration of that interruption.

Section 9: Grading & Evaluation

9.1: Grading Scale/System

Grade	Quality Points	
A	4.0	
A-	3.67	
B+	3.33	
B	3.0	
B-	2.67	
C+	2.33	
C	2.0	
C-	1.67	
D+	1.33	
D-	1.0	
R	0.0	Failure
I	Non-factorable	Incomplete

The general grading policy is described on the University's grading policy website: https://www.cmu.edu/policies/student-and-student-life/grading.html.

This policy offers details concerning the University's grading principles for students taking courses and covers the specifics of assigning and changing grades, grading options, drops/withdrawals, and course repeats. It also outlines graduate grading standards.

9.1.1 Course Grade Requirements

Students must earn at least a B- in courses for them to count towards certificate requirements. Courses with a grade of a C+ or lower will need to be retaken to earn the certificate.

9.2: Policy on Retaking a Course

Students may retake a course only once and are responsible for all tuition and fees related to retaken courses.

Both the original grade earned and the grade earned in the retaken course will be factored into

the cumulative QPA.

9.3: Pass/Fail Policy

Courses must be taken for a letter grade as opposed to pass/fail (often called pass/no-pass).

9.4: Incomplete Policy

Students are expected to complete a course during the academic semester in which the course was taken. However, if the instructor agrees, a grade of “I” (Incomplete) may be given when a student, for reasons beyond their control, has been unable to complete the coursework, but the work completed to date is of passing quality and the grade of incomplete provides no undue advantage to that student over other students.

When awarding an “I” grade, the instructor must specify the requirements for completing the work and designate a default letter grade where no further work is submitted.

Students must complete the required coursework no later than the end of the following academic semester, or sooner if required by prior agreement. The instructor must record the permanent grade by the last day of the examination period of the following semester, or the default grade will automatically be assigned.

An “I” grade should only be assigned if a student has completed at least 75% of the coursework, not 75% of the assessments, and only due to unforeseen circumstances, not due to “trouble keeping up” or maintaining balance with other coursework. The student should be completing the same work as everyone else in the course as outlined in a written agreement with the faculty that includes deadlines for completion.

Students are responsible for monitoring grade status and taking steps to remove incomplete grades from their academic records. Incomplete grades will prevent certificate completion.

9.6: GPA Requirements and QPA Requirements for Completion

Students must have a cumulative grade point average (QPA) of at least 3.0 in all required coursework and total units for the certificate in order to be eligible to earn the certificate.

If at any point it becomes mathematically impossible for the student to earn a 3.0, they may be withdrawn from the program.

9.7: Satisfactory Academic Standing

Good academic standing is defined as having a QPA of at least 3.0.

A student with a QPA below 3.0 at the conclusion of a semester will receive written notice that they do not meet the minimum QPA requirement. Students are responsible for consulting with their advisor to discuss a plan for returning to good academic standing. Students with more than one term below a 3.0 may be subject to academic actions.

A student can be in good academic standing and on student conduct probation at the same time due to incidents unrelated to their academic performance.

9.8: Course Failure

Students must retake for credit any required courses they fail and must pass the course on the second attempt. Students who do not pass a required course on their second attempt will be dismissed from the program.

Section 10: Tuition & Scholarships

10.1: Scholarship Policy

Scholarships are awarded at the time of admission and are not reconsidered after enrollment.

Scholarships are awarded by course and are not transferable between courses or semesters. If a course isn't taken, or a student withdraws from the program, the associated scholarship is forfeited.

10.3: Course-Related Fees

You may be responsible for course-related fees that support the services, platforms, and resources provided in that course. Fees will be assessed in S3 and are subject to university payment deadlines.

All current fees are outlined here: https://www.cmu.edu/online/welcome/tuition/index.html

Please review this page regularly, as fees are subject to change from term to term.

10.11: Tuition Billing & Payment

Tuition is set each spring for the following academic year (fall, spring, summer terms).

Tuition will be charged at the current per-unit rate for each course the student is enrolled in. Students who take a leave of absence will be charged at the academic year rate of the program they rejoin upon return.

In the event that a student drops a course and takes a leave of absence or withdrawal, tuition will be subject to the tuition adjustment policy.

For questions about tuition, contact your program specialist.

10.12: Sponsored Billing & Third-Party Payments

If an outside entity, government, or a third party is paying for all or part of your educational expenses, you should participate in the University's Sponsored Billing Process.

10.13: Student Financial Obligation & Past Due Accounts

Students are subject to, and must be aware of, the Carnegie Mellon policy regarding student financial obligation: https://www.cmu.edu/sfs/billing/sfo.html.

10.14: Course Drop for Non-Payment

Students should either pay their account balance in full or have an approved payment plan (Nelnet, sponsored billing arrangement, VA benefits) in place by the published payment due dates each term.

If that deadline is not met, all account balances must be resolved by the day before the semester add/drop deadline (per the CMU Online Calendar) of the current term to remain enrolled in their courses.

If a student does not complete payment by the add/drop deadline of each term:

- The student will be dropped from all enrolled courses for that term.
- The student will be placed on a leave of absence or deferred to the next available term or withdrawn from the program, depending on the situation.

Students with extenuating circumstances are encouraged to reach out to their program specialist before the deadline to discuss options available to them.