

- ❖ The doctoral program is structured as a total of **52 units** in courses from these group A, B, and C. Out of the 52 units, 48 units must be taken for letter grade and at least 40 units must be graduate-level courses, unless exception/waiver approved.
- ❖ Students **CANNOT** repeat a course unless they earn a D, F, U, or W grade. If you'd like to repeat a course, please submit the [online form](#). More information about how to repeat a course can be found [here](#).
- ❖ Course offerings are subject to change and not all courses will be offered every year. Students should reference the course offerings webpage. This worksheet is to be used as a planning tool.

Group A: Foundational Courses

DSC200	Data Science Programming
DSC202	Data Management for Data Science
DSC210	Numerical Linear Algebra
DSC211	Introduction to Optimization
DSC212	Probability and Statistics for Data Science

Group B: Required Core Courses (Required 4 Courses)

DSC240	Machine Learning
DSC241	Statistical Models (or MATH282B)
DSC260	Data Ethics and Fairness
DSC204A	Scalable Data Systems (or CSE 202)
-OR- DSC206	Algorithms for Data Science [Prerequisite: DSC210& DSC212]

Group B: Core Courses (Minimum 2 Courses)

DSC203	Data Visualization and Scalable Visual Analytics [Prerequisite: DSC 202]
DSC204B/CSE255	Big Data Analytics and Applications
DSC215	Statistical Critical Thinking
DSC242	High-dimensional Probability and Statistics
DSC243	Advanced Optimization
DSC244	Large-Scale Statistical Analysis
DSC245	Introduction to Causal Inference [Prerequisite: DSC212,240]
DSC250	Advanced Data Mining [Prerequisite: DSC190AorCSE158or equivalent]
DSC261	Responsible Data Science

Group C: Professional Preparation

DSC599	TA/Tutoring Training
DSC293	Faculty Research Seminar
DSC294	Research Rotation
DSC295	Academia Survival Skills

General Electives

COGS243, CSE234, DSC205, DSC213, DSC214, DSC231, DSC251, DSC252, DSC253, DSC254, DSC 291, DSC 299, MATH281 A-B-C, MATH284, MATH 285, MATH287A-B.

- ❖ 4-unit, grad level 200+ courses from BENG, MGT, MGTA, GOGS, FMPH, PHYS, BGGN, MATH, BNFO, POLI, SIOB, ECE, MAE, and CSE taken for a letter grade maybe counted. Exceptions to this list require departmental approval.

[illegible]

- € **Research Rotation DSC 294** must be completed within first three quarters. For FA26, WI27, and SP27 fill out the [HDSI DSC 294 Research Rotation Academic](#) survey.
- € **The Preliminary Examination** can be scheduled upon completion of Group B Required Core Courses and must be completed no later than the second Spring of full-time study. [HDSI PhD Preliminary Examination requirements](#).
- € **The Research Qualifying Exam (UQE)** should be completed in the 3rd year of study, and no later than the end of the fourth year of full-time study. NOTE: Passing the UQE by the end of your third year of study is highly recommended.
- € **Normative Time Limit:** Students are expected to complete the requirements for the Ph.D. in five years of full-time study.
- € **Support Time Limit:** Students may not receive financial support from the University for more than five years of full-time study.
- € **Total Registered Time Limit:** Students may not register as graduate students for more than seven years of full-time study.

Student acknowledges this is a tentative academic plan which they are responsible for updating with their faculty mentor and their graduate advisor. For good academic progress, B or above are required to graduate with your Ph.D. degree. UCSD requires yearly checks between student and the advisor.

Program Start Date:

Program End Date: