DS-Eng Sample Schedule (for students who matriculate to the University of Michigan Fall 2024 or later)

The sample schedule below summarizes the program requirements. DS-Eng students need 128 total credits towards their program and at least 42 credits in the major, excluding prerequisites.

Course Planning: Students can reference the EECS course descriptions and Atlas for a basic introduction to our courses. CSE Peer Advisors have also developed an ULCS/Senior Design Info Sheet providing student narratives about their experiences in our courses. Several core course syllabi are also available at the link provided. For more planning assistance, students should schedule an appointment with an advisor on the EECS undergraduate website

Note that General Electives are intended to help students reach 128 total credits required for graduation and may vary from student to student, with 15 credits being the maximum needed. Please discuss with your advisor if you are unsure of the necessary number of General Elective credits for your degree.

Data Science in Engineering	Total	1	2	3	4	5	6	7	8
Subjects Required by all Programs (55 credits)									
Mathematics 115, 116, and (214 or 217)	12	4	4		4				
Mathematics 215	4			4					
Engineering 100, Introduction to Engineering	4		4						
Engineering 101, Introduction to Computers	4	4							
Chemistry 125/126 and 130, or Chemistry 210 and 211	5			5					
Physics 140 and Lab 141	5			5					
Physics 240 and Lab 241	5				5				
Intellectual Breadth	16	4			4	4	4		
Program Core (30 credits)									
Introductory Data Science: DATASCI 101 (strongly recommended), STATS 250, STATS 280, IOE 265, or ECON 451	3-4	3-4							
Discrete Mathematics: EECS 203 or MATH 465	4		4						
EECS 280, Programming and Elementary Data Structures	4		4						
EECS 281, Data Structures and Algorithms	4			4					
STATS 412, Introduction to Probability & Statistics	3				3				
STATS/DATASCI 413, Applied Regression Analysis	4					4			
Databases and Applications: EECS 484 or EECS 485	4						4		
Machine Learning/Data Mining: EECS 445 or STATS/DATASCI 415	4					4			
Data Science Applications elective (see online list)	3								3
Advanced Electives and Capstone (12 credits)									
Advanced Technical Elective (see online list)	4						4		
Advanced Statistical Analysis Elective (see online list)									4

	Total								
Capstone Experience Course	4							4	
Other Requirements									
Flexible Technical Electives. 200-level or higher from a pre-approved list of courses, or with advisor approval prior to taking the courses.	11						4	4	3
TCHNCLCM 300	1						1		
EECS 496 (or ENGR 499-002, or COMPFOR 111 through WN25, or CSE 543, or approved Special Topics sections)	2							2	
TCHNCLCM 497, TCHNCLCM 499, STATS 404, or STATS 485	2								2
General Electives (15 credits) – See note above	15						3	6	6
Total	128	16	16	18	16	16	16	16	18

Notes:
- Students must complete additional application electives, advanced technical electives, or advanced statistical analysis electives, as needed to satisfy the required 46 credits for the major.
- A course taken for capstone credit cannot also count for an advanced technical elective or advanced statistical analysis elective.