

MASTER OF ENGINEERING IN CIVIL AND ENVIRONMENTAL ENGINEERING

Department of Civil and Environmental Engineering (<https://catalog.mit.edu/schools/engineering/civil-environmental-engineering/#master-science-civil-engineering>)

Data Science for Engineering Systems Track Requirements

1.577	Data-Centric Engineering Studio	12
-------	---------------------------------	----

<i>Select at least 18 units from the following subjects:</i>		18
--	--	----

1.121[J]	Advancing Mechanics and Materials via Machine Learning
----------	--

1.125	Architecting and Engineering Software Systems
-------	---

1.275[J]	Business and Operations Analytics
----------	-----------------------------------

6.C51 & 1.C51	Modeling with Machine Learning: from Algorithms to Applications and Machine Learning for Sustainable Systems
------------------	--

IDS.131[J]	Statistics, Computation and Applications
------------	--

Concentration	24
----------------------	-----------

Select 24 units from either the Computational Modeling and Design for Sustainability concentration or the Resilient Infrastructure Systems and Services concentration:

Computational Modeling and Design for Sustainability

1.147	Startup Sustainable Tech
-------	--------------------------

1.545[J]	Atomistic Modeling and Simulation of Materials and Structures
----------	---

1.579	Materials in Agriculture, Food Security, and Food Safety
-------	--

1.61	Transport Processes in the Environment
------	--

1.631[J]	Fluids and Diseases
----------	---------------------

1.65	Atmospheric Boundary Layer Flows and Wind Energy
------	--

1.723	Computational Methods for Flow in Porous Media
-------	--

Resilient Infrastructure Systems and Services

1.200[J]	Transportation: Foundations and Methods
----------	---

1.202	Demand Modeling
-------	-----------------

1.208	Resilient Networks
-------	--------------------

1.260[J]	Logistics Systems
----------	-------------------

1.263[J]	Urban Last-Mile Logistics
----------	---------------------------

1.266	Supply Chain and Demand Analytics
-------	-----------------------------------

1.303[J]	Infrastructure Design for Climate Change
----------	--

1.581[J]	Structural Dynamics
----------	---------------------

1.583[J]	Topology Optimization of Structures
----------	-------------------------------------

Unrestricted Electives	12
-------------------------------	-----------

Thesis

1.THG	Graduate Thesis	24
-------	-----------------	----

Total Units	90
--------------------	-----------