



# FOUNDATIONS OF DATA AND MODELS: Regression Analytics

Instructor: F. Dale Morgan | [professional.mit.edu/dme](https://professional.mit.edu/dme)

*Note: All times are US Eastern Daylight Time. Schedule is subject to change.*

MONDAY	
9:00–10:30 AM	Philosophy of Data and Models
10:30 AM–11:30 AM	Least Squares
11:30 AM–NOON	Levenberg-Marquardt & Ridge Regression
NOON–1:00 PM	Lunch
1:00–5:00 PM	Lab Exercises
TUESDAY	
9:00–10:00 AM	Damped Least Squares Comparison
10:00 AM–11:30 AM	Least Squares with Constraints
11:30 AM–NOON	Stochastic Inverse
NOON–1:00 PM	Lunch
1:00–5:00 PM	Lab Exercises
WEDNESDAY	
9:00–10:30 AM	Singular Value Decomposition
10:30 AM–NOON	Random and Grid Search Methods
NOON–1:00 PM	Lunch
1:00–5:00 PM	Lab Exercises
THURSDAY	
9:00–10:00 AM	Simulated Annealing and Genetic Algorithms
10:00 AM–NOON	Neural Networks
NOON–1:00 PM	Lunch
1:00–5:00 PM	Lab Exercises
FRIDAY	
9:00–10:00 AM	Experimental Design
10:00 AM–11:00 AM	Parameter Error Estimates
11:00 AM–NOON	Large Inverse Problems
NOON–1:00 PM	Lunch
1:00–5:00 PM	Lab Exercises