

# Datasci 255











## Machine Learning Systems Engineering



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(<https://learn.berkeley.edu/courses/395/pages/welcome-to-mids-alumni-course-library>)

This course provides learners hands-on data management and systems engineering experience using containers, cloud, and Kubernetes ecosystems based on current industry practice. The course is project based with an emphasis on how production systems are used at leading technology-focused companies and organizations. During the course, learners build a body of knowledge on data management, architectural design, developing batch and streaming data pipelines, scheduling, and data security, including access management and auditability. We'll also cover how these tools are changing the technology landscape.

**[Click here for sample syllabus.](https://learn.berkeley.edu/courses/395/files/16579?wrap=1)** (<https://learn.berkeley.edu/courses/395/files/16579?wrap=1>) [↓](#)  
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Module	Videos
1 - Monolith and Mircoservices Architectures	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-1">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-1</a> )
2 - Continuous Integration and Continuous Delivery	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-2">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-2</a> )

Module	Videos
3 - Development and Production Systems	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-3">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-3</a> )
4 - Machine Learning Models Over API, Part I	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-4">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-4</a> )
5 - Machine Learning Models Over API, Part II	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-5">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-5</a> )
6 - Cache	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-6">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-6</a> )
7 - State	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-7">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-7</a> )
8 - Kubernetes, Part 1	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-8">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-8</a> )
9 - Kubernetes, Part II	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-9">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-9</a> )
10 - Kubernetes, Part III	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-10">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-10</a> )
11 - Deploy and Instrument a Machine Learning Prediction API	 ( <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-11">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-11</a> )

Module	Videos
12 - Model Evaluation	 <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-12">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-12</a>
13 - Security	 <a href="https://learn.berkeley.edu/courses/395/pages/datasci255-dot-13">https://learn.berkeley.edu/courses/395/pages/datasci255-dot-13</a>