**Day 1**[Help](https://class.coursera.org/bigdataschool-001/help/pages?url=https%3A%2F%2Fclass.coursera.org%2Fbigdataschool-001%2Fwiki%2FDay_1)

**Introduction and Welcome**(G. Djorgovski, R. Doyle, D. Crichton)

* [Video 1](https://class.coursera.org/bigdataschool-001/lecture/89) (Djorgovski) [10:41] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/djorgovski_welcome.pdf) (pdf)
* [Video 2](https://class.coursera.org/bigdataschool-001/lecture/109) (Doyle & Crichton) [16:22] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/doyle-crichton-intro-1.pdf) (pdf)

Additional readings:

* ["The Fourth Paradigm"](http://research.microsoft.com/en-us/collaboration/fourthparadigm/)(free book download from Microsoft Research)
* NAS report "Frontiers in Massive Data Analysis" (2013), [free pdf download](http://www.nap.edu/catalog.php?record_id=18374)
* Many other [relevant reports](http://www.nap.edu/topics.php?topic=279) are available from the NAS

**Big Data Architecture: Fundamentals**(C. Mattman)

* [Part 1](https://class.coursera.org/bigdataschool-001/lecture/57) [24:15] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Architecture-Mattmann-p1.pdf) (pdf)
* [Part 2](https://class.coursera.org/bigdataschool-001/lecture/59) [16:39] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Architecture-Mattmann-p2.pdf) (pdf)
* [Part 3](https://class.coursera.org/bigdataschool-001/lecture/61) [19:20] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/Architecture-Mattmann-p3.pdf) (pdf)
* [Hands-on exercise](https://d396qusza40orc.cloudfront.net/bigdataschool/Excercises-BigData.pdf) (pdf): a description, contains links for the necessary downloads.
* Additional readings: [Apache OODT (Big Data Processing)](http://oodt.apache.org/)

**Introduction to Machine Learning**(C. Donalek)

* [General Aspects](https://class.coursera.org/bigdataschool-001/lecture/15)[14:01] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/donalek-1-MLintro.pdf) (pdf)
* [Supervised Learning](https://class.coursera.org/bigdataschool-001/lecture/17)[14:09] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/donalek-2-SupervisedLearning.pdf) (pdf)
* [Unsupervised Learning](https://class.coursera.org/bigdataschool-001/lecture/19) [15:00] [Slides](https://d396qusza40orc.cloudfront.net/bigdataschool/lecture_slides/donalek-3-UnsupervisedLearning.pdf) (pdf)

Additional resources:

* [Yaser Abu-Mostafa's Caltech class "Learning From Data"](https://work.caltech.edu/telecourse.html)
* "Data Mining - Concepts and Techniques", J. Han & M. Kamber, MK,