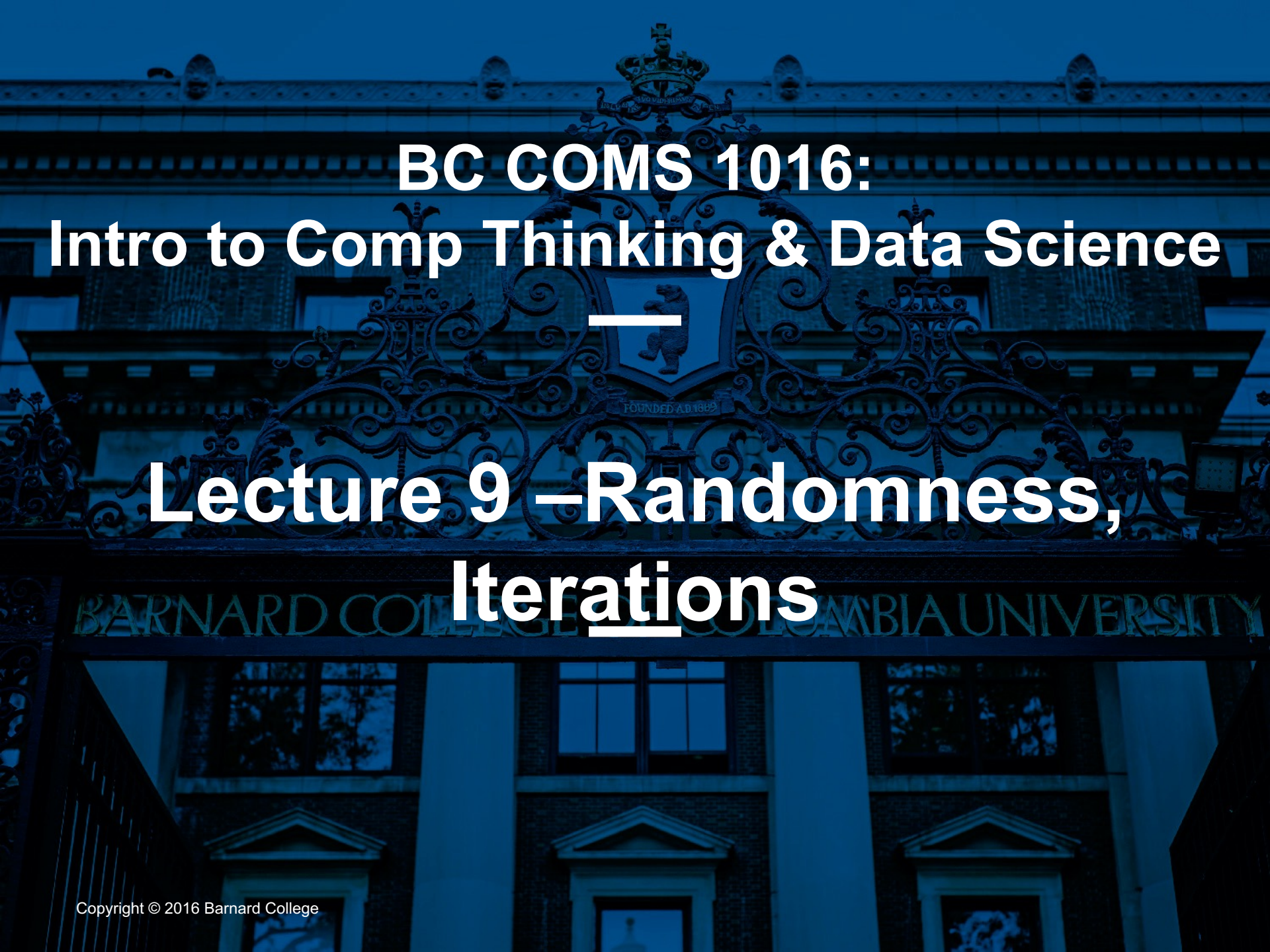

BC COMS 1016:
Intro to Comp Thinking & Data Science

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Lecture 9 –Randomness, Iterations

Announcements

- HW04
  - Due Tuesday (03/01)
- Lab 4 this week (posted tonight)
- Checkpoint/Project 1:
  - Paired assignment that covers the previous section of the course material
  - Due Thursday 03/03

Control Statements

Control Statements

These statements *control* the sequence of computations that are performed

- The keywords if and for begin control statements
- The purpose of if is to define functions that choose different behavior based on their arguments

Control and Treatment

- treatment group
- control group
- How do we determine causality?

Random Selection

Random Selection

np.random.choice

- Selects at random
- With replacement
- From an array
- A specific number of times

np.random.choice(some_array, sample_size)

Appending Arrays

A Longer Array

- np.append(array_1, value):
  - new array with value appended to array_1
  - value has to be of the same type as elements of array_1

- np.append(array_1, array_2):
  - new array with array_2 appended to array_1
  - Elements of array_2 have to be of the same type as elements of array_1

Iteration

for **statements**

- for is a keyword that begins a control statement
- The purpose of for is to perform a computation for every element in a list or array