CIT5910
Course Introduction

Instructor: Brandon Krakowsky

Penn Engineering

Introduction

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  - I teach a similar course on Coursera in the Online MCIT Program

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- I'm also the Research & Education Director at Wharton Customer Analytics
- What is Wharton Customer Analytics?
  - We partner with companies to provide real-world datasets to Penn students, faculty, and academic researchers around the world, for research and data and analytics projects
    - Some of our partners include Microsoft, Comcast, IKEA, McDonald's, and Fox
  - We also teach technical workshops and build online courses for students across the university to learn data management, analytics, and technical skills
    - Some of our online courses include Intro to SQL, Python Bootcamp, and Intro to Data Visualization

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- I became the Research & Education Director at WCA
- Most recently, I became a Lecturer at Penn Engineering

More About Me – I Play Bass

- I’m a bass player
- I’ve been playing bass for many years
- I play a variety of styles, but prefer music on the funkier side
- I’ve been in many bands, have travelled extensively, and also write and record my own music

More About Me – *Mostly*, I'm a Family Man!

- Finally, I'm a family man
- I've been married for about 17 years, and have 3 daughters, ages 14, 12, and 4
- So … it's a full house!

OK, Enough About Me!

About This Course

TAs for the Course

- **Head TA: Aaron Schnall (aschnall@sas.upenn.edu)**
- **Head TA: Lucy Hu (hulu@seas.upenn.edu)**
- Yu Zhou (zy0718@seas.upenn.edu)
- Yung-Jen Yang (yungjen@seas.upenn.edu)
- Wai Chung Ng (justinng@seas.upenn.edu)
- Renisa Pati (renisa@seas.upenn.edu)
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Regularly scheduled office hours:

- Office hours will be provided as **a mix of in-person and virtual options!**
- The weekly schedule will be posted on https://edstem.org/us/courses/24929/discussion/
- Depending on availability, the times and in-person/virtual locations could change

My Office Hours

- Brandon Krakowsky (lbrandon@wharton.upenn.edu)
- Regularly Scheduled Office Hours:
  - Mon. after lecture until about 5:30, Meyerson Hall B3
  - Wed. after lecture until about 5:30, Meyerson Hall B3
  - By appointment

What Will You Learn in this Course?

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- Intro to programming and software development using Java
- Code syntax
- Style and conventions
- You will also learn:
  - Code testing
  - Code debugging
  - Code design
  - Code documentation
  - Computational thinking!

Course Topics for Java

- Intro to Programming, The Java Language, & Eclipse
- Variables & Data Types
- Scanners, Intro to Exception Handling
- Conditionals
- Loops
- Intro to Classes & Methods
- Arrays
- Strings
- Classes, Methods, Fields, & Constructors
- Access Modifiers
- Test-Driven Development
- 2D Arrays

Course topics are subject to change!

Course Topics for Java

- ArrayLists
- Static Variables & Methods
- Polymorphism – Inheritance, Overloading, & Overriding
- Abstract Classes
- Interfaces
- Debugging
- File I/O & Exception Handling
- Collections
- Maps
- Regular Expressions
- Connecting to Databases
- Version Control & Git

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Java

- Why learn Java?
  - Object oriented and robust
  - Used for many applications
    - For example, Android programming is basically Java programming
  - Used in a number of other courses in the CS department at Penn

Keeping Track of this Course

- Canvas will be used for all course content, homework assignments, quizzes, and exams
  - Canvas Homepage: https://canvas.upenn.edu/courses/1667744
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- E-mail Brandon to contact him directly

Course Material Format

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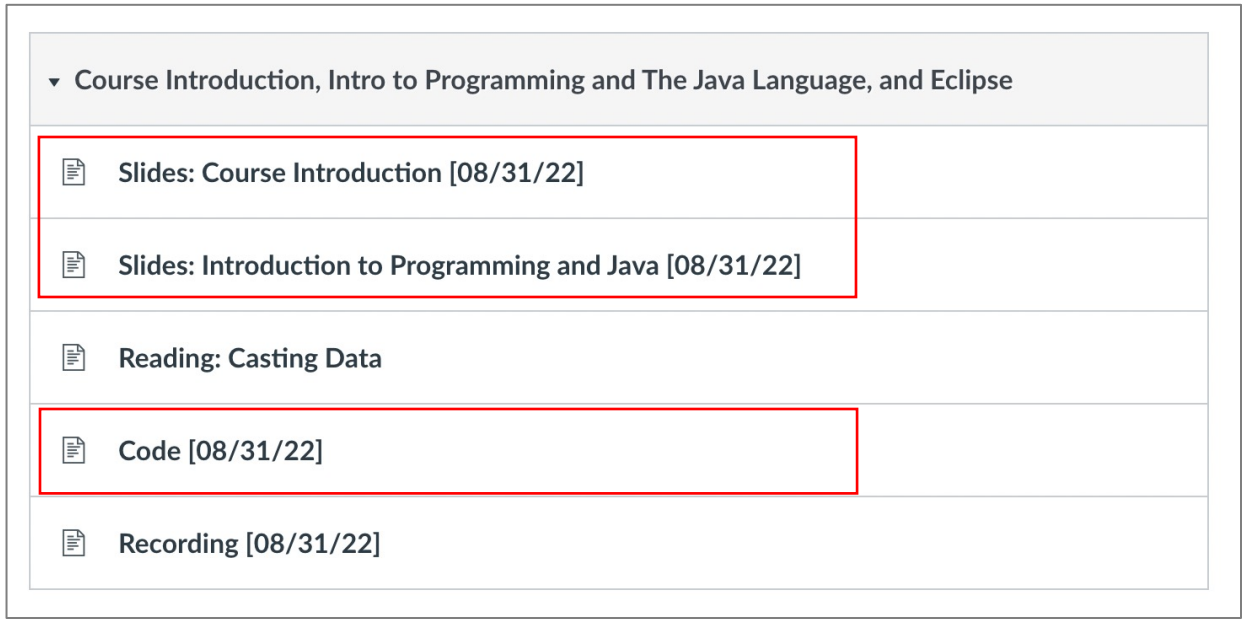

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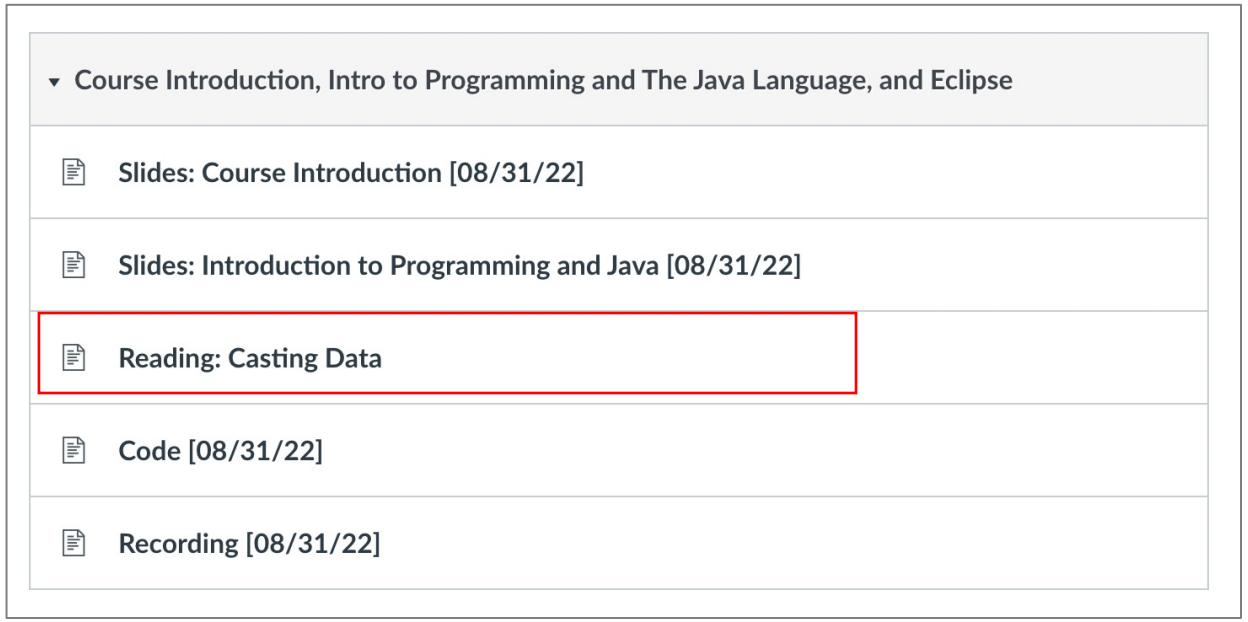

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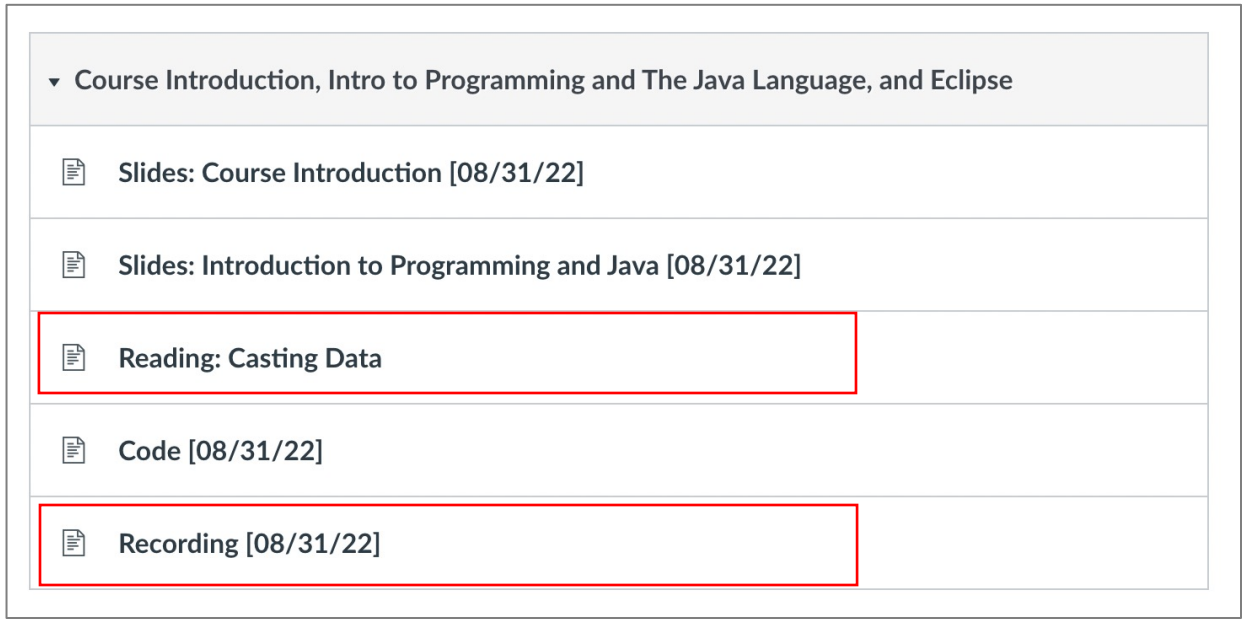
- And you’ll find the lecture recordings



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  - They will take place on: **Mon. & Wed. 3:30pm – 5:00pm ET in Meyerson Hall B3**

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- Note: No recitation this week (09/01/22)!

Quizzes

- There will be an *online graded quiz* every week
  - It will be posted on canvas by Wed. and will be due by Thur. (typically before scheduled recitation)
  - Note: No quiz this week!

Homework Assignments

- Homework will be assigned *just about* every week
  - There will be a total of 9 – 10 homework assignments, depending on how much material we get through
  - Deadlines will be strictly enforced
  - If you do have an emergency, please contact me or have one of your classmates contact me

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- For the final assignment, you'll have the option to work as a group (no more than 2 students) and define your own project! (More details to be provided)

Exams

- There will be a Midterm (at the *approximate* midpoint of the semester)
  - This will cover ONLY material up until that point
- There will be a Final Exam (at the *end* of the semester)
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- Once an exam is posted, you will have *about 5 days* (and maybe even more time) to complete it

Grades

- Grade Breakdown
  - Homework will be worth 65% of the grade
  - Midterm: 15%
  - Final exam: 15%
  - Quizzes: 5%

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- What does this mean?
  - We visualize all final grades and observe the natural separation of the numeric grades into groups
  - Then we assign a letter grade to each group based on the numeric range
    - For example, depending on how well the class does overall, an A+ could be a 96 – 100; an A could be a 91 – 95; and an A- could be an 87 – 90.
    - These are just examples!
  - This type of curve is typically beneficial to most students and in no cases will this policy bring a final score down

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- We highly recommend using Dropbox/Git/Google Drive to make sure you have previous versions of your work saved
  - If you do not have a backup system, please talk to us
  - If you do not trust the cloud, please use a USB drive

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- The approximate homework schedule with due dates will be posted on Ed Discussion

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- Once you have used up all 3 late days, you will get:
  - 75% points, if you submit within 24 hrs
  - 50% points, if you submit within 48 hrs
  - 0 points, if you submit any later than that

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- You must submit ALL homework assignments to pass this course

Excuses – Illness or Emergencies

- DO NOT burn a late day if you are feeling unwell or if there is a family emergency
  - Instead, ask me for an extension

Excuses – Illness or Emergencies

- DO NOT burn a late day if you are feeling unwell or if there is a family emergency
  - Instead, ask me for an extension
- Mental health will be treated the same as physical health

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- Please remember that a few points here and there will not make a difference
  - You're here to learn!

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  - It works REALLY WELL!

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- That said, there will be specific assignments that are group (up to 2 students) projects
  - We will let you know what those are
  - Working in a group will be *optional*

Looking Things Up on the Internet

- You can use the official Java documentation
  - Anything in the Java Tutorials, for example: https://docs.oracle.com/javase/tutorial/
  - Other similar online documentation …
- Do not use an internet search for keywords in a HW assignment
  - For example, if an assignment requires you to make a poker game, do not Google “Shuffling cards in Java”
  - This is the same as cheating and you’ll be in violation of the course policy!

Posting Code Online

- Posting solutions online is also considered cheating. If you are caught posting solutions or code to a publicly accessible location (like StackOverflow or GitHub), it will be considered cheating.

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- If you do use GitHub (or similar cloud-based code management system) to set up a remote code repository, YOU ARE REQUIRED TO KEEP THAT REPOSITORY PRIVATE
  - So, do not share code in a publicly accessible repository

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    - Eclipse (Integrated Development Environment for Java development): http://www.eclipse.org/downloads/ (Download latest version)
- Optional Books: There are some suggested books for students who would like to supplement the course material with additional reading(s). *They are entirely optional.*

Waiver Exam

- **This information is only relevant for students interested in taking the CIT Waiver Exam**
  - This means that if you intend to take CIT5910, then you don't have to worry about taking the Waiver Exam (or reading anything else on this slide).
- The Waiver Exam will be a single programming assignment and you will have up to 4 hours to complete it.
- The Waiver will be released later this week or early next week. TBD!
- Anyone seriously interested in taking the waiver should talk to me after class.

Questions?