

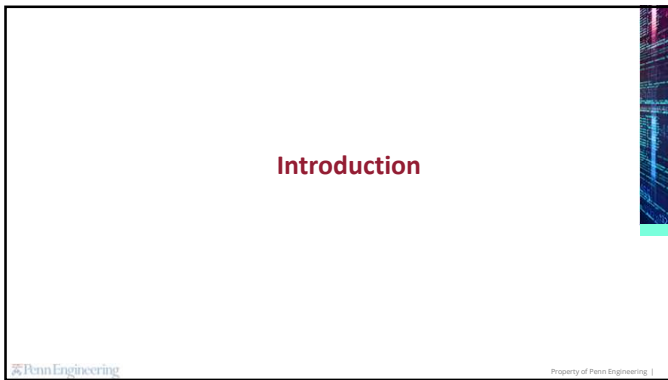


Course Introduction


Brandon Krakowsky

 Penn Engineering

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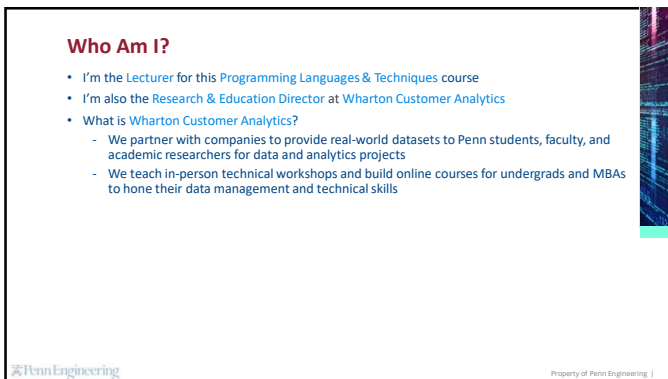


Introduction

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Who Am I?

- I'm the **Lecturer** for this **Programming Languages & Techniques** course
- 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 for data and analytics projects
 - We teach in-person technical workshops and build online courses for undergrads and MBAs to hone their data management and technical skills

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What's My Background?

- I started out as a musician ... then worked in radio broadcasting and audio production
- I started doing Flash programming ... and I developed a live web conferencing platform for Big Pharma
- I received my [Masters in Computers & Information Technology](#) from UPenn
- I worked as a programmer at the [School of Design](#)
- I started my own company [BleeK, LLC](#) doing programming and freelance web development
- I worked as an application developer for [Wharton Computing](#)
- I became the Research & Education Director at [WCA](#)
- Most recently, I became a Lecturer at [Penn Engineering](#)

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More About Me – I Play Bass

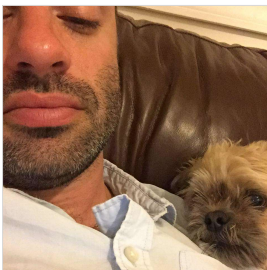


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More About Me – I Like My Dog, We're Close



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OK, Enough About Me!

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About This Course

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Who Is This Course For?

- Master's students who are not in the Department of Computer and Information Science
- People who want to learn the basics of programming and have never programmed before
- People who have programmed before but have not used that skill in a long time (let's say ... more than 5 years)

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Do Not Take This Course If...

- You have written a substantial project/program in any programming language
 - Programming languages come and go, you do not need to take this course just to learn a new language
- You have a lot of other coursework
 - There will be programming assignments every week – most of them are very time consuming
 - Debugging code takes an unpredictable amount of time!

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What Will You Learn in this Course?

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

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Course Topics for Python

- | | |
|---|---|
| <ul style="list-style-type: none"> • Intro to Programming/Python, & Jupyter Notebook • Variables, Conditionals, & IDLE • Intro to Lists, Loops • Functions & Modular Programming • Lists & Strings | <ul style="list-style-type: none"> • PyCharm, Tuples & Sets • Unit Testing • Dictionaries • Files • Data Analysis • Object-Oriented Programming |
|---|---|

Course topics are subject to change!


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Python

- Why begin with Python?
 - Great first language and easy to get up and running quickly
 - Easier to learn than Java
 - Allows you to spend more time thinking about programming logic and algorithms, and less time thinking about code syntax




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Resources

- I am providing these books here because they are an easy read for students who would like to supplement the lectures with additional reading
 - Python in Easy Steps (by Mike McGrath)
- These books are entirely optional
 - I will not cover exactly the same material nor will I assign readings from them



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