



Compiled & Curated by

HONSN PRESS USA



An Introduction to Python Jupyter

Thomas VanDrunen | Paul Isihara
Peter Jantsch | Claire Wagner



An Introduction to Python Jupyter (HONSN PRESS USA)

Author :	Claire Wagner
ISBN 13 :	978-93-74546-65-9
ISBN 10 :	93-74546-65-5
E-ISBN 13 :	978-93-74546-65-9
Edition :	First
Pages :	1200
Type of book :	Paperback
Year :	2026
Language :	English
Publisher :	Khanna Publishing House
M.R.P :	Rs 2,450.00
Categories :	Emerging Technologies, Licensed Books
Condition Type :	New
Country Origin :	India

Product Description

An Introduction to Python Jupyter Notebooks for College Math Teachers” is a comprehensive and evolving classroom resource designed to bridge the gap between theoretical collegiate mathematics and practical computational application. This text serves as an essential guide for college math teachers and their students seeking to seamlessly integrate the power of Python and Jupyter Notebooks (JNBs) into their curriculum. Unlike traditional textbooks, this entire work is presented in the form of modular Jupyter Notebooks, with each section structured for interactive engagement. This format allows for the direct input and execution of Python code alongside explanatory text, charts, and multimedia resources, making mathematical concepts immediately demonstrable and reproducible.

The book’s core theme is to enrich and enliven the study of mathematics using this cutting-edge tool. It offers immense practical value by covering a wide range of collegiate mathematics, from foundational Python programming and Exploratory Data Analysis (EDA) to advanced topics in Calculus, Linear Algebra, Statistical Inference, Differential Equations, and Complex Variables. Crucially, it connects these abstract concepts to complex real-world societal applications, such as modeling disease spread (COVID-19), analyzing urban data, and groundwater flow. Each chapter is designed to be read independently and includes dedicated JNB labs with solutions, providing a flexible framework for experienced educators to modify and tailor content to their specific courses, ultimately serving as a useful starting point to harness computational power for mathematical education.

Salient Features

- **Interactive Learning Format:** The entire book is written as modular Jupyter Notebooks, allowing for immediate, interactive execution of code alongside explanatory content, which is ideal for classroom use.
- **Comprehensive Curricula Integration:** The content seamlessly integrates Python programming with core college mathematics, including Calculus, Linear Algebra, Probability, and Statistical Inference for multiple course levels.
- **Foundational Coding Guide:** Provides a detailed Python Programming Guide, introducing essential concepts like data types, control flow, functions, and working with libraries such as NumPy and Pandas.
- **Applied Data Science:** Dedicated chapters on Exploratory Data



Table of Contents

1. Preface
2. Pre-College- Wheaton College Team
3. Python Programming Guide- Thomas VanDrunen, Yiheng Liang
4. Exploratory Data Analysis- Jonathan Zhu
5. Probability- Laura Gross, Yiheng Liang
6. Statistical Inference- Peter Jantsch, Claire Wagner
7. Applied Calculus for Daily Life- Wheaton College team
8. Calculus- Inne Singgih
9. Linear Algebra- Soheil Anbouhi
10. Linear Algebra and Optimization for Data Analysis- Wheaton College team
11. Differential Equations- Rachel Petrik
12. Differential Equations for the benefit of Society- Wheaton College Team
13. Complex Variables in Groundwater Modeling- Wheaton College Team
14. Advanced Data Analysis- Jonathan Zhu, Claire Wagner, Ying Li
15. Complex Systems- Wheaton College Team

Author

Claire Wagner Paul Isihara Peter Jantsch Thomas VanDrunen

