Python 3.x Features in *Learning Python* (6th Edition)

Based on Preface Extract

This note summarizes the key Python 3.x features and editorial changes mentioned in the book's preface. It distinguishes between what is covered in the book and what needs to be supplemented separately.

✅ Covered in the Book (Brief to Moderate Depth)

Feature	Description
`f"..."` f-string literals	Modern string formatting syntax (Python 3.6+).
`:=` Walrus operator	Assignment expressions, e.g., `if (n := len(data)) > 10:`.
`match-case` statement	Structural pattern matching (Python 3.10+); lightly covered.
Star unpacking	Extended unpacking in assignments and calls, e.g., `a, *b, c = ...`.
Underscore digit separators	For readability: `1_000_000`.
`__main__.py` files	Package-level CLI entry points.
`__getattr__` (module-level)	Custom behavior for module attribute access.
`except*` (exception groups)	New in Python 3.11 for handling multiple exceptions concurrently.
Dictionary key insertion order	Dicts now preserve insertion order (from Python 3.7+).
Positional-only arguments (`/`)	Enforce positional args in function signatures.
Hash-based bytecode (`.pyc`)	Uses file content hash instead of timestamp for `.pyc` validation.

❌ Not Covered in Depth (By Design)

Feature	Reason Omitted	Suggested Resources
Type Hinting	Considered "academic" and not core to Python's philosophy.	Python docs on `typing`, mypy, Real Python.
Async / Await Coroutines	Advanced and evolving; out of beginner scope.	asyncio docs, Miguel Grinberg blog, Real Python async series.

Editorial and Structural Updates in the Book

- Unicode coverage improved in Chapter 37 (now essential in computing).
- More balanced platform coverage: macOS, Linux, Android, iOS.
- Numbered code example captions for easier reference.
- Selective removal of redundancy while preserving necessary repetition.
- Reduced print size by moving optional advanced Chapters 38 & 39 online.
- Gender-neutral example names ("Pat" instead of "Bob").
- Removed Monty Python references for clarity and neutrality.
- Removed author anecdotes and first-person tone to keep focus on content.

🟩 Summary

Covered Well: f-strings, walrus operator, match-case, star unpacking, digit separators, module hooks, exception groups, `__main__.py`, positional-only args, hash-based bytecode, dict insertion order.

Needs Supplementing: Type hinting, async/await and concurrency.

Other Improvements: Unicode, cross-platform focus, leaner print, gender neutrality, clearer code layout.

Kelvin can use this as a live companion note to track progress through the book and decide when to explore supplemental topics like typing and async.