

TEACHING OPPORTUNITIES

CERTIFICATE IN PYTHON PROGRAMMING



JOB DESCRIPTION

The University of Washington (UW) is proud to be one of the nation's premier educational and research institutions. UW Professional & Continuing Education, delivered by Continuum College (UWC²), offers certificate programs and degrees to working professionals in the evenings, weekends and online.

UWC² has a range of outstanding opportunities for instruction and curriculum development in the:

CERTIFICATE IN PYTHON PROGRAMMING

This certificate program is designed for professionals who have at least one year of experience coding in any object-oriented programming language.

This program will give students an understanding of the major Python libraries and guide them in standard programming styles and idioms. Students will explore different aspects of network-based programming with Python, including web applications, and dig into larger systems development issues and advanced topics.

OFFERED IN FOUR FORMATS

- **Online, self-paced** – Students start anytime and move at their own pace with up to 4 months to complete each course. There are no class meetings or fixed deadlines.
- **Online, group-paced** – Students start and finish the program as a group with opportunities to interact with instructors and classmates through office hours, discussion boards and projects. Assignments have fixed deadlines.
- **Classroom** – Students attend class in downtown Seattle or Bellevue **one night a week**.

INSTRUCTIONAL AND CURRICULUM DEVELOPMENT ROLES

There are two types of roles available. All roles are part-time and designed to accommodate professionals who work during business hours. Please see tables below for specific openings.

- **Course Instructor** – Share and grow your skills by teaching a set curriculum in any one of four formats described above.
- **Instructional Assistant** – Develop your knowledge and experience by serving as an instructional assistant to coach and teach students online or in the classroom.

COURSE TOPICS AND JOB OPENINGS

Course 1: Programming in Python

Topics may include	Current Job Openings
<ul style="list-style-type: none">• Command interpreter, development environment, documentation, data types and functions• Modules and import; conditionals and Boolean expressions• Sequences; Iteration• Dictionaries; Exceptions; Files and text processing• Unicode; Advance argument passing; List and Dict comprehensions• Testing• Lambda and functional programming• OOP• Iterators, generators, decorators• Packages• Persistence and serialization	Instructor Instructional Assistant For Classroom and Online

Course 2: Advanced Programming in Python

Topics may include	Current Job Openings
<ul style="list-style-type: none">• Decorators and generators• Metaclasses, design patterns, SOLID• Testing: coverage, linting, fixtures, mocks, hypotheses• Debugging: loggin, pdb/ipdb, PyCharm• Deployment and DevOps:continuous integration, deployment, fabric• Relational databases: SQL, PostGress, Django ORM, SQLAlchemy• Non-relational, Object/Document, and Graph Databases: NoSQL and “chemaless”, PostGres,• Mongo, Couch, Neo4j• Functional Programming: OO vs Functional debate• Performance: Profiling, PyPy, Cython	Instructor Instructional Assistant For Classroom and Online

Course 3: Internet Programming with Python

Topics may include	Current Job Openings
<ul style="list-style-type: none">• TCP/IP and sockets• Web Protocols• CGI and WSGI• Web scraping, APIs, mashups• Microservices• Flask• Django	Instructor Instructional Assistant For Classroom and Online

SKILLS AND EXPERIENCE

Required

- To be an instructor: At least three years of post-undergraduate professional experience in Python programming
- To be an assistant: At least 1 year experience in Python programming
- Excellent interpersonal, oral, and written communication skills
- Legal authorization to work and receive compensation in the United States

Desired

- To be an instructor: Undergraduate or graduate degree in relevant field
- Teaching experience

APPLY TO TEACH

Interested applicants should send a resume or LinkedIn profile and letter of interest describing relevant experience, preferred course and role to the Program Manager, Debalina Datta, ddatta@uw.edu. Please also provide either code samples, or a link to your Git site.