

TEACHING OPPORTUNITIES

CERTIFICATE IN DATA SCIENCE



The University of Washington 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.

We pride ourselves on providing high-quality and up-to-date learning experiences. We are able to do this by working with industry professionals who want to share their knowledge with students and grow professionally through teaching.

OFFERED IN TWO 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.
- **Classroom** – Students attend class in downtown Seattle or Bellevue one night a week.

INSTRUCTIONAL AND CURRICULUM DEVELOPMENT ROLES

There are three types of roles. All roles are part-time and designed to accommodate professionals who work during business hours.

- **Course Developer** – Share your expertise by developing videos, assignments, labs and assessments.
- **Course Instructor** – Share and grow your skills by teaching a set curriculum in one of the two formats above.
- **Instructional Assistant** – Develop your knowledge and experience by serving as an instructional assistant to coach and teach students online or in the classroom.

SKILLS AND EXPERIENCE

Required

- To be an instructor/developer: At least three years of professional experience as a Data Scientist
- To be an assistant: At least 1 year professional experience as a Data Scientist
- Excellent interpersonal, oral, and written communication skills
- Willingness to collaborate and coordinate with instructional team

- Commitment to supporting students in achieving learning outcomes
- Desire to contribute to on-going program development
- Legal authorization to work and receive compensation in the United States

Desired

- Undergraduate or graduate degree in relevant field
- Teaching experience

COURSE TOPICS INCLUDE

Course 1: Data Science: Process and Tools	Course 2: Methods for Data Analysis	Course 3: Machine Learning Techniques
<ul style="list-style-type: none"> • Intro to data science • Nature of data • Data flow diagrams • Aberrant data • Numeric data • Categorical data • Data structures • Data preparation • K-means • Predictive analytics • Accuracy measures • Simple statistics • Data model 	<ul style="list-style-type: none"> • Data exploration • Combinatorics • Hypothesis testing • Bayesian statistics • Regression • Regularization • Time series analysis • Naïve Bayes 	<ul style="list-style-type: none"> • Machine learning and data science process • Pitfalls of ML • Feature engineering • Feature selection • Decision trees • Ensemble models • Support vector machines • Neural networks • Deep learning

ROLE OVERVIEWS

GENERAL

All instructional team members will be provided with access to the full program materials and expected to review it to understand the scope and depth of the curriculum. In addition to the weekly instructional and administrative tasks below, they provide feedback on curriculum and coordinate with instructors of other courses to ensure student success and satisfaction. All new instructional team members are expected to complete onboarding and training in adult learning best practices, learning technologies, and institutional policies and procedures.

ROLE DETAILS

INSTRUCTOR Online, Self-Paced

A typical week for a course instructor will vary but on average may comprise 2 hours of online office hours, 7 hours of grading and student engagement (including discussion forums), mentoring and guidance outside of office hours, and 1-hour meeting time/prep with the instructional team.

- Serve as the lead and central point of communication for the instructional team. Delegate tasks to instructional assistants, and serve as final decision maker in weekly instructional team meetings.
- Grade a portion of assignments and/or projects and make final grade decisions.
- Participate in online office hours to address student questions or misunderstandings.
- Lead and contribute to online discussion forums.
- Establish a visible presence in the online course by guiding and facilitating instruction, student learning, and student interaction.
- Provide a welcome message to all new students entering the course.
- Provide feedback on student work in a timely manner (48 hours for email and discussion board posts, 72 hours to grade assignments, and 5 days to submit final course grade).
- Communicate with students via discussion forums, email, and individualized feedback on assignments.
- Follow a defined process to document student grades and student hand-off in the event a different course instructor will need to take over midway through a course.
- Coordinate with other instructors in the certificate program, to ensure curriculum continuity.
- Provide instructional content and feedback with minimal supervision while maintaining high standards of professionalism, timeliness, and content relevance for diverse adult students.
- Collaborate with program manager and the rest of the instructional team to address student course evaluation feedback.
- Participate in at least one 60-minute information session during the recruiting season and up to two instructor meetings per year.
- Complete instructor onboarding and relevant learning technology training.
- Understand UWC² policies regarding grading and course completion timelines so as to accurately communicate them to students.
- Utilize – and, if not familiar with, learn – the following technologies: Open edX, Outlook email and calendaring, OneDrive, Zoom, Power BI, and other program-specific technologies.
- Observe FERPA, HIPAA, and other privacy laws and policies.
- Discuss instructional team performance with program manager using the Instructional Quality Rubric after first three months and annually thereafter.

INSTRUCTOR: Classroom

- Teach to a set curriculum plan with clear learning outcomes and competencies. Ensure that lesson plans and presentation materials for the full course are relevant and current. Elaborate on course concepts by sharing relevant examples from industry.
- Ability to teach all class sessions at the scheduled time, respond to student inquiries during the week, and grade assignments. Expectations during the course comprise a minimum of 3 hours of

weekly instruction and approximately 7 hours of weekly lesson preparation, student interaction, and grading outside of class time.

- Respond to student inquiries and provide feedback on student work in a timely manner
- Serve as the lead and central point of communication for the instructional team. Delegate tasks to instructional assistants, and serve as final decision maker in instructional team meetings.
- Grade a portion of assignments and/or projects and make final grade decisions.
- Participate in online office hours to address student questions or misunderstandings.
- Coordinate with other instructors in the certificate program to ensure curriculum continuity
- Adapt instructional techniques based on feedback, and implement sound pedagogical practices
- A willingness to teach with minimal supervision while maintaining high standards of professionalism, punctuality, and content relevance for diverse adult students.
- Participate in at least one 60-minute information session during the recruiting season and up to two instructor meetings per year.
- Prepare a course syllabus in advance of the course start date (template will be provided)
- Participate in weekly check-ins with co-instructors and/or instructional assistants for the duration of the course
- Complete an instructor onboarding and relevant learning technology training
- Understand UWC² policies regarding grading and course completion timelines so as to accurately communicate them to students.
- Utilize – and, if not familiar with, learn – the following technologies: Canvas Open edX, Outlook email and calendaring, OneDrive, Zoom, Power BI, and other program-specific technologies.
- Observe FERPA, HIPAA, and other privacy laws and policies.

INSTRUCTIONAL ASSISTANT: Online Course, Self-Paced

A typical week for an instructional assistant will vary but on average may comprise an average of 9 hours per week of preparation, student interaction, monitoring discussion forums, monitoring student progress, assisting the instructor with grading, and 1 hour per week setting up/prepping for/conducting the weekly instructional team meeting.

- Serve as the primary responder to student inquiries such as content questions, assignment questions, policies, etc. Use discretion on when to escalate questions to the instructor or the appropriate administrative staff. Timely response is 48 hours for email and discussion board posts and 72 hours to grade assignments,
- Monitor student engagement with the online course materials and with peers, including online discussion forums.
- Check in with all students in the course at regular intervals using set timeline and email templates
- Engage with inactive students to find out how to best support them. Inform instructor of students who have not completed by their deadline to ensure grades are issued accordingly.
- Coordinate with the course instructor to ensure curriculum continuity. Schedule and facilitate a weekly 1-hour instructional team meeting and compile meeting notes.
- Provide grading support as directed by the instructor. May review drafts of final projects or other student work before submitted for grading.
- Collaborate with program manager, instructor, and the rest of the instructional team to address student course evaluation feedback.

- Follow a defined process to document student interactions and student hand-off in the event that a different instructional assistant takes over midway through a course.
- Work collaboratively with the course instructor, adapting an approach based on feedback and sound pedagogical practices.
- Maintain high standards of professionalism, timeliness, and content relevance for diverse adult students.
- Complete instructor onboarding and relevant learning technology training.
- Understand UWC² policies regarding grading and course completion timelines so as to accurately communicate them to students.
- Utilize – and, if not familiar with, learn – the following technologies: Canvas Open edX, Outlook email and calendaring, OneDrive, Zoom, Power BI, and other program-specific technologies.
- Observe FERPA, HIPAA, and other privacy laws and policies.

INSTRUCTIONAL ASSISTANT: Classroom

A typical week for an instructional assistant will vary but on average may comprise an average of 10 hours per week of preparation, student interaction, monitoring discussion forums, monitoring student progress, grading, and coordinating with instructor in weekly check-ins.

- Serve as the primary responder to student inquiries such as content questions, assignment questions, policies, etc. Use discretion on when to escalate questions to the instructor or the appropriate administrative staff. Timely response is 48 hours for email and discussion board posts and one week to grade assignments,
- Coordinate with the course instructor and instructional team to ensure curriculum continuity. Schedule and facilitate a weekly check-in with instructor and compile meeting notes.
- Provide grading support as directed by the instructor. This may include using rubrics to grade lesson assignments, providing substantive feedback on student work, and conducting initial review of Milestone projects.
- Collaborate with program manager, instructor, and the rest of the instructional team to address student course evaluation feedback.
- Work collaboratively with the course instructor, adapting an approach based on feedback and sound pedagogical practices.
- Maintain high standards of professionalism, timeliness, and content relevance for diverse adult students.
- Complete an instructor onboarding and relevant learning technology training.
- Understand UWC² policies regarding grading and course completion timelines so as to accurately communicate them to students.
- Utilize – and, if not familiar with, learn – the following technologies: Canvas, Open edX, Outlook email and calendaring, OneDrive, Zoom, Power BI, and other program-specific technologies.
- Observe FERPA, HIPAA, and other privacy laws and policies.

APPLY TO TEACH

We interview prospective instructors on an on-going basis. Interested applicants should send a resume or LinkedIn profile and letter of interest describing relevant experience, teaching philosophy, preferred course and role to the Program Manager, Ashley Kim, aekim@uw.edu.



The University of Washington is a leader in [environmental stewardship & sustainability](#), and committed to becoming climate neutral. [The University of Washington is an equal opportunity, affirmative action employer.](#) To request disability accommodation in the application process, contact the Disability Services Office at 206-543-6450 / 206-543-6452 (tty) or dso@uw.edu.