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## Python data science programs

Progress at your own speedOptional upgrade availableIn the information age, data is all around us. Within this data are answers to compelling questions across many societal domains (politics, business, science, etc.). But if you had access to a large dataset, would you be able to find the answers you seek? This course, part of the Data Science MicroMasters program, will introduce you to a collection of powerful, open-source, tools needed to analyze data and to conduct data science. Specifically, you'll learn how to use: python jupyter notebooks pandas numpy matplotlib git and many other tools. You will learn these tools all within the context of solving compelling data science problems. After completing this course, you'll be able to find answers within large datasets by using python tools to import data, explore it, analyze it, learn from it, visualize it, and ultimately generate easily sharable reports. By learning these skills, you'll also become a member of a world-wide community which seeks to build data science tools, explore public datasets, and discuss evidence-based findings. Last but not least, this course will provide you with the foundation you need to succeed in later courses in the Data Science MicroMasters program.Institution: UCSanDiegoXSubject: Data Analysis & StatisticsLevel: AdvancedPrerequisites: Previous experience with any programming language (Java, C, Pascal, Fortran, C++, Python, PHP, etc.) is expected.This includes a high school, or undergraduate equivalent, to an introduction to computer science course.Learners should be comfortable with loops, if/else, and variables.Language: EnglishVideo Transcript: EnglishAssociated programs:MicroMasters® Program in Data Science Basic process of data science Python and Jupyter notebooks An applied understanding of how to manipulate and analyze uncurated datasets Basic statistical analysis and machine learning methods How to effectively visualize results Unfortunately, learners residing in one or more of the following countries or regions will not be able to register for this course: Iran, Cuba and the Crimea region of Ukraine. While edX has sought licenses from the U.S. Office of Foreign Assets Control (OFAC) to offer our courses to learners in these countries and regions, the licenses we have received are not broad enough to allow us to offer this course in all locations. edX truly regrets that U.S. sanctions prevent us from offering all of our courses to everyone, no matter where they live. This introduction to Python will kickstart your learning of Python for data science, as well as programming in general. This beginner-friendly Python course will take you from zero to programming in Python in a matter of hours. Upon its completion, you'll be able to write your own Python scripts. If you want to learn Python from scratch, this free course is for you. Continue reading PY0101EN Python 26336 Enrolled (5.94K+) Progress at your own speedOptional upgrade availableThere is a rising demand for people with the skills to work with Big Data sets and this course can start you on your journey through our Big Data MicroMasters program towards a recognised credential in this highly competitive area. Using practical activities you will learn how digital technologies work and will develop your coding skills through engaging and collaborative assignments. You will learn algorithm design as well as fundamental programming concepts such as data selection, iteration and functional decomposition, data abstraction and organisation. In addition to this you will learn how to perform simple data visualisations using Processing and embed your learning using problem-based assignments. This course will test your knowledge and skills in solving small-scale data science problems working with real-world datasets and develop your understanding of big data in the world around you.Language: EnglishVideo Transcript: EnglishAssociated programs:MicroMasters® Program in Big Data How to analyse data and perform simple data visualisations using Processing Understand and apply introductory programming concepts such as sequencing, iteration and selection Equip you to study computer science or other programming languages Section 1: Creative code - Computational thinking Understanding what you can do with Processing and apply the basics to start coding with colour; Learn how to qualify and express how algorithms work. Section 2: Building blocks - Breaking it down and building it up Understand how data can be represented and used as variables and learn to manipulate shape attributes and work with weights and shapes using code. Section 3: Repetition - Creating and recognising patterns Explain how and why using repetition can aid in creating code and begin using repetition to manipulate and visualise data. Section 4: Choice - Which path to follow How to create simple and complicated choices and how to create and use decision points in code. Section 5: Repetition - Going further Discussing advantages of repetition for data visualisation and applying and reflecting on the power of repetitions in code. Creating curves, shapes and scale data in code. Section 6: Testing and Debugging Understanding why and how to comprehensively test your code and debug code examples using line tracing techniques. Section 7: Arranging our data Exploring how and why arrays are used to represent data and how static and dynamic arrays can be used to represent data. Section 8: Functions - Reusable code Understand how functions work in Processing and demonstrate how to deconstruct a problem into useable functions. Section 9: Data Science in practice Exploring how data science is used to solve programming problems and how to solve big data problems by applying skills and knowledge learned throughout the course. Section 10: Where next? Understand the context of big data in programming and transform a problem description into a complete working solution using the skills and knowledge you've learned throughout the course, and explore how you can expand the skills learned in this course by participating in future courses.Question: Why does this course use Processing? Answer: We have chosen to use Processing within ProgramX as this language gives visual feedback to the learner, is readily accessible (only requires a free install of Processing) and is suitable as a language to teach fundamental programming concepts that can be readily adapted to other languages. Other courses within the Big Data MicroMasters program build upon the programing concepts and are taught using languages selected as appropriate for the teaching and learning context. Question: This course is self-paced, but is there a course end date? Answer: Yes. The first course release started on May 15, 2017 and ended on December 1, 2018. The second release of the course started on December 1, 2018 and ends on December 1, 2020. The third release of the course starts on March 1, 2019 and ends on December 1, 2020. BrowsePython Data Science I had a wonderful experience learning Data Science with Python with Simplilearn. Thank you, Vaishali for explaining concepts theoretically and practically. The live sessions helped me easily understand the concepts. The training was well-structured, and the trainer was experienced with hands-on know-how. The trainer handled responses and queries efficiently with a good amount of patience.It was a great learning experience. My trainer, Vaishali delivered each session well. All topics were explained with in-depth theory, real-time examples, and execution of the same in Python. Her teaching methodology enhanced the learning process.The online classes were well-paced and helped us learn a ton of stuff within a short amount of time. Vaishali is very knowledgeable and handled all the sessions with outstanding professionalism. Thanks for your expertise.I learned a lot about Python, Numpy, Pandas, Visualization. The instructor, Swagat was excellent in explaining things clearly. The support team is also accommodative and resolves issues instantly.I completed this course at Simplilearn. The faculty, Prashanth Nair, was extremely knowledgeable, and the entire class appreciated his way of teaching. Simplilearn's support team was very accommodating and quick in providing responses. I was able to grab a 30% hike in my salary after getting certified.The sessions are very interesting and easy to understand. I enjoyed each and every one of them, thanks to the trainer, Prashant.Incredible mentorship, and amazing and unique lectures. Simplilearn provides a great way to learn with self-paced videos and recordings of online sessions. Thanks, Simplilearn, for providing quality education.Simplilearn is an excellent platform for online learning. Their course curriculum is comprehensive and up to date. We get lifetime access to the recorded sessions in case we need to refresh our understanding. If you are looking to upskill, I suggest you sign up with Simplilearn. They offer classes in almost all disciplines.Simplilearn facilitates a brilliant platform to acquire new & relevant skills at ease. Well laid out course content and expert faculty ensure an excellent learning experience.I took this course with Simplilearn. The instructor is knowledgeable and shares their skills and knowledge. My learning experience has been outstanding with Simplilearn. The practice labs and materials are helpful for better learning. Thank you, Simplilearn. Happy Learning!!Prashant Nair is an awesome faculty. The way he simplifies, relates and explains topics is outstanding. I would love to enroll for and attend all his classes.The instructor not only delivers the lecture but also focuses on practical aspects related to the subject. This is something about the course that really impressed me.I recently enrolled in the Data Scientist Master's Program at Simplilearn. The syllabus is systematically structured, and the Live sessions are explained with real-time examples. This makes the course more accessible to freshers with basic knowledge. Looking forward to completing it. Thanks, Simplilearn Team.Simplilearn's courses are affordable and helped me learn something new during the lockdown. Moreover, I also got to add a Well-Known Global Name like Simplilearn to my resume. I could choose the trainer as well as enroll for multiple sessions using the Flexible Pass.

