

CPE LINUX (LIX)

LIX 0004 - Linux Essentials (1-900 Credits)

.5 - 900 lecture, 1 - 900 lab, 0 - 900 clinical/other, 1.5 - 900 total contact hours

Focuses on configuring a Linux virtual machine, managing hardware, file operations, process management, basic security, and networking. This course helps prepare students to earn a Linux Professional Institute (LPI) Linux Essentials Certification. It will include lectures, practice questions, labs, and discussions needed to successfully pass LPI's official exam. Prerequisite: general computer or programming experience may be helpful.

LIX 8101 - Introduction to Python Programming (1 Credit)

.5 lecture, 1 lab, 1.5 total contact hours

Establish knowledge to become sufficient as a beginner Python programmer. Identify the benefits and usefulness of Python including excellent readability and uncluttered simple-to-learn syntax which helps beginners to utilize this programming language. Basic computer experience is required. Programming experience is preferred.

Typically offered: Fall, Spring, Summer

LIX 8103 - Intermediate Python Programming (1 Credit)

.5 lecture, 1 lab, 1.5 total contact hours

Explores complex areas of Python programming. Discovers how to use this knowledge to work with data structures. Develops custom scripts, GUI applications, and portable exe programs. Recommended Preparation: experience with Python or object-oriented programming.

Typically offered: Fall, Spring, Summer

LIX 8121 - Python for Data Analysis (1 Credit)

1 lecture, 1 total contact hours

This course utilizes Python libraries like Pandas, NumPy, and Matplotlib to handle complex data operations efficiently. Provides opportunities to prepare, clean, and structure data for analysis, uncover patterns, and present findings using compelling visualizations. Demonstrates practical, hands-on experience through real-world datasets and projects.

Typically offered: Fall, Spring, Summer

LIX 8123 - Forecasting with Python (2 Credits)

2 lecture, 2 total contact hours

This course covers the principles and techniques of predictive modeling using Python. Students will demonstrate time series analysis, statistical forecasting methods, and machine learning approaches. This course uses Python libraries such as pandas, statsmodels, and Prophet, to prepare data, develop forecasting models, and evaluate their performance. Provides an overview of the skills needed to develop and implement forecasting models to make informed data-driven decisions.

Typically offered: Fall, Spring, Summer