INNOVATIVE TALENTS
SCIENCE TRAINING
PROGRAM

2024 SPRING QUARTER

Here is to certify that Yingqi Liu has attended the course: Data Analysis in the Innovative Talents Science Training Program from March 8th, to May 26th, 2024.

OFFICIAL TRANSCRIPT

Program	Professor	Class Period	Grade
Data Analysis	Gunther Roland	03/08/2024~05/26/2024	89.00

The curriculum design of the course focuses on drawing lessons from the educational concepts of both General Education and Research-Based Learning of world-class universities.

Professor: Gunther Roland
Home Institution: Massachusetts Institute of Technology

GRADE	EQUIVALENT PERCENTAGES	GRADE	EQUIVALENT PERCENTAGES
A+	90-100	C+	67-69
A	85-89	C	63-66
A-	80-84	C-	60-62
B+	77-79	D+	57-59
B	73-76	D	53-56
B-	70-72	D-	50-52

Other Grading Information: Nonacademic Credit=Attended, Audited.

For more information visit ke.neoschool.com/student/#/passport/login and go to the Grading, Credits and Transcripts page in the Student Services Section.

Please note: The course syllabus and outlines are strictly in consistent with professor's home institutions. All lectures and readings are in English and all students works are also performed in English. Academy consistency is therefore maintained in accordance with the academic requirements at their respective colleges.

Neoscholar Education Group Inc. General Corporation SEAL 2020

ISSUED TO:

Name: Yingqi Liu **Student ID:** 20212241174*

Class Period: 48 class hours

*Transcript valid only if bearing the Professor's Signature.

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Data Analysis

2024 .ITSTP

Basic Information

Course Title	Data Analysis
Instructor	Gunther Roland, Professor, Physics Department, MIT
Prerequisites	Basic programming experience, preferably familiarity with Python. Mathematical foundation, including basic concepts of linear algebra, calculus, probability theory, and statistics
Required Text & Tools	Laptop/computer and Python 3 programming environment
Grading Criteria	Exams: 50% Homework: 40% Class Participation: 10%
Course Key Words	Data Analysis, Data Visualization, Multivariate Analysis, Machine Learning, Supervised Learning, Unsupervised Learning, Reinforcement Learning, Deep Learning

Schedule

No.	Topics
Lecture 1	Introduction to Programming in Python
Lecture 2	Data Analysis and Basic Statistics
Lecture 3	Essential Python Libraries for Data analysis
Lecture 4	Data Visualization and Working with Large Datasets
Lecture 5	Introduction to Multivariate Analysis
Lecture 6	Introduction to Machine Learning
Lecture 7	Supervised Learning in Scikit-learn
Lecture 8	Unsupervised Learning
Lecture 9	Reinforcement Learning
Lecture 10	Deep Learning