



Trading Algorithms

COURSE INTRODUCTION

School of Computer Engineering
Iran University of Science & Technology

Semester 401-2

Outlines

- Lecturer Information
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- Prerequisites
- Review of Course Content
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Lecturer Information

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Teaching Assistants

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Class Page on Quera

- All of the assignments and projects will be uploaded to our course page on Quera.
- Join the course using the following link:
 - https://quera.org/course/add_to_course/course/14937/
 - Password: **TA4021**

Grading Policy

- Assignments (6 practical exercises): 9
- Project: 3
- Final exam: 9

Sum: 21

Prerequisites

- There are no such prerequisites for this course but having a basic knowledge of the following three fields will help you to deeply understand the concepts and stand out from the crowd.
 - Programming (preferably Python)
 - Statistics and mathematics
 - Technical analysis (price action, indicators, oscillators, etc.)

Review of Course Content

- Introduction to technical analysis
- Introduction to automated trading
- Strategy backtesting
- Time series analysis
- Mean reverting strategies
- Momentum strategies
- Portfolio management

References

- M.H. Moore, "**Successful Algorithmic Trading**," Kindle edition, 2022.
- R. Velu, M. Hardy, and D. Nehren "**Algorithmic Trading and Quantitative Strategies**," Taylor & Francis, 2020.
- S. Donadio and S. Ghosh, "**Learn Algorithmic Trading**," Packt Publishing, 2019.
- E.P. Chan, "**Machine Trading: Deploying Computer Algorithms to Conquer the Markets**," John Wiley & Sons, 2017.
- R. Kissell, "**The Science of Algorithmic Trading and Portfolio Management**," Elsevier, 2014.
- E.P. Chan, "**Algorithmic Trading: Winning Strategies and Their Rationale**," John Wiley & Sons, 2013.
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