



**Universität
Zürich** ^{UZH}

Fall Term 2018

Application Information for the Portfolio Management
Program:

**Portfolio Management Theory (I and II), MATLAB for
Portfolio Management and Portfolio Management
Implementation (I and II)**

Department of Banking and Finance
University of Zürich

Prof. Dr. Thorsten Hens
Dr. Alexandre Ziegler

Course Information

Portfolio Management Theory (I and II), MATLAB for Portfolio Management and Portfolio Management Implementation

The two Portfolio Management Theory seminars and the MATLAB course in the first year aim to provide a theoretical basis of the various methods of portfolio management. We consider the behavioural, quantitative and macroeconomic approaches with an eye towards practical applications. Based upon these insights, a sustainable investment philosophy will be constructed and analysed. The second year of the seminar will afford the students with the unique opportunity to implement the respective approaches in a real-life setting.

Objective:

The students will gain a fundamental understanding of financial market theory in the course of the seminars as well as invaluable practical experience. In particular, the various facets of asset management, portfolio theory and risk management will be explored. Hereby the focus will rest on producing sustainable strategies which take into account macroeconomic, quantitative and behavioural modelling respectively.

Course Structure:

The first year of the course encompasses two seminars and one course, namely *Portfolio Management Theory I*, *Portfolio Management Theory II* as well as *MATLAB for Portfolio Management*. The first year provides an ideal basis for the second year *Portfolio Management Implementation* seminar.

Year 1			Year 2	
Fall Term		Spring Term	Fall Term	Spring Term
Seminar: Portfolio Management Theory I	Course: MATLAB for Portfolio Management	Seminar: Portfolio Management Theory II	Seminar: Portfolio Management Implementation I	Seminar: Portfolio Management Implementation II
6 ECTS Credits	3 ECTS Credits	3 ECTS Credits	3 ECTS Credits	6 ECTS Credits

Portfolio Management Theory I:

- **Learning Objective:**
 - Provides an introduction to financial market theory, as well as the various approaches to portfolio management. Students learn about the theoretical underpinnings of behavioral, quantitative and macroeconomic methodologies as well as how these are implemented in a practical setting.
- **Organization:**
 - Weekly seminar every Monday afternoon from 2 – 6 pm.
 - Initially, there will be four “Introduction to Portfolio Management Theory” lectures. These lectures will be divided into the following categories: Equities, Bonds, FX and Vol. The content of these lectures will also serve to acquaint the students with the various strategies employed in portfolio management. Thereafter, the students will hold group presentations on two dates answering a series of questions pertaining to a set of given papers. These are divided into behavioral, quantitative and macroeconomic categories.
 - On three occasions the students will spend the afternoon in Vitznau, which will also entail talks by financial industry market experts.
- **Target Participants:**
 - Students (at a Masters level or shortly before completing their Bachelors degree) with a focus on Banking and Finance, Quantitative Finance or Financial Economics.
- **The number of spaces available is limited**
- **Course Requirements:**
 - Compulsory attendance at all seminars, except in the case of pre-approved permission.
 - Active participation in the seminars.
 - Group presentations and discussions.
 - Final exam in January.
- **ECTS- Credits: 6**

MATLAB for Portfolio Management:

- **Learning Objective:**
 - The course will introduce students to the basics of MATLAB.
 - The course will provide a foundation in programming for the Portfolio Management Theory II seminar and Portfolio Management Implementation components.
- **Organization:**
 - Weekly seminar every Tuesday from 10:15 to 12:00.
 - Final exam in January.
- **Target Participants:**
 - Students who attend the Portfolio Management Theory I course.
- **ECTS- Credits: 3**

Portfolio Management Theory II:

- **Learning Objective:**
 - Based on the knowledge acquired in Portfolio Management Theory I and MATLAB for Portfolio Management, the students are now tasked with building a sustainable investment strategy within a group. Such a strategy will be developed to such a degree that it may be implemented in a practical setting in the second year of the program. The asset allocation strategies are to be built on the basis of a behavioral, quantitative or macroeconomic framework.
- **Organization:**
 - Seminar on a select number of Tuesday afternoons from 2 – 6 pm.
 - Group presentations to be held regarding the asset allocation strategy.
 - Regular group meetings.
 - Bloomberg tutorials.
 - Talks by financial market industry experts.
- **Target Participants:**
 - Students who have successfully completed the Portfolio Management Theory I seminar and MATLAB for Portfolio Management Theory course.
- **The number of spaces available is limited**
- **Course Requirements:**
 - Compulsory attendance at all seminars, except in the case of pre-approved permission.
 - Active participation in the seminars, group meetings and presentations.
 - Short analyst group presentations (on three occasions for 15-20 minutes) for the current portfolio managers and well as a brief written summary.
- **ECTS- Credits: 3**

Portfolio Management Implementation:

- **Learning Objective:**
 - Following a year of insight into the theoretical foundations of portfolio management and asset allocation, students are given the unique opportunity to implement what has been learned. Thus, following a behavioral, quantitative or macroeconomic approach students are tasked with actively investing in a portfolio. This more practically oriented year requires an average of 12-15 working weeks, spread out over two semesters.
- **Organization:**
 - The groups will provide regular performance updates in the form of monthly reporting sheets and a series of meetings.
- **Target Participants:**
 - Students who have successfully completed the Portfolio Management Theory I and II seminars as well as the MATLAB for Portfolio Management course.
- **The number of spaces available is limited**

- **Course Requirements:**
 - Timely preparation of the monthly reporting sheets. At the end of the year each group completes a term paper reflecting on the implementation of theoretical concepts in a practical setting.
- **ECTS- Credits:** 3 credits in the fall and 6 credits in the spring semester respectively

Entry Requirements and Application Details

We aim to attract students who have already acquired some fundamental knowledge in finance, in particular in the field of portfolio management. However, we do welcome applications from students from other fields who wish to deepen their understanding of finance. In this course, programming skills would be particularly useful.

As the program extends over two years, we encourage students to consider the Portfolio Management Program as a two-year commitment. We would like to extend this unique opportunity to students who are interested in going the extra mile to obtain practical experience.

Students should expect to spend around 10 hours per week working towards the class. We will therefore favour first year Masters students, but also encourage Bachelors students in their final semester to apply.

Next to the technical qualifications, **good communication skills and the willingness to be a team player** are vital for this course.

Applications:

Interested students can send their complete applications in a single PDF file to Michael Rohr (pmpadmin@bf.uzh.ch) by August 31st (1st deadline) or September 21st (2nd deadline). We will consider the applications as they arrive but are only able to invite candidates shortly before the interviews.

All applications should include the following material:

1. Motivation Letter
 - a. As well as the usual content expected in a letter of motivation, the students should pick **one investment strategy** (i.e. Behavioural, Macro or Quantitative) that they find most interesting or best matches their skill set, and motivate why they have chosen this strategy.
2. Curriculum Vitae
3. References of Employment
4. Current Grades
5. Additionally, we ask the students to provide a GPA estimate of all completed courses as well as all Banking & Finance related lectures separately.

The **interviews** will take place on **Monday, September 24th 2018**. All the selected candidates will receive a notification by latest Friday, September 28th. The Kick-off meeting will take place on Monday, October 1st.