unine
Université de Neuchâtel
Faculté des sciences économiques

*In effect since the 2026-2027 academic year*
*Approved on 15 April 2026*

# MASTER OF SCIENCE IN FINANCE (90 OR 120 ECTS)
## OPTIONAL TRACK IN DATA SCIENCE AND SUSTAINABILITY (120 ECTS)

| Code | Course | Instructor | ECTS | Status | H/ week | Grading Policy |
|---|---|---|---|---|---|---|
| **S1 - Autumn** | | | | | | |
| 5AF2003 | Investments | Hasler M. | 6 | Mandatory | 4 | E |
| 5AF2009 | Fixed Income | Guidotti I. | 3 | Mandatory | 2 | E |
| 5AF2001 | Financial Accounting | Fiechter P. | 6 | Mandatory | 4 | E |
| 5AF2041 | Quantitative Methods for Finance | Hasler M. | 6 | Mandatory | 4 | E |
| | Elective courses | | 9 | Elective | | |
| **S2 - Spring** | | | | | | |
| 5AF2008 | Corporate Finance | Salva C. | 6 | Mandatory | 4 | EI+E |
| 5AF2002 | Derivatives | Cujean J. | 6 | Mandatory | 4 | E |
| 5AF2019 | ESG Disclosure | Fiechter P. | 3 | Mandatory | 2 | EI |
| 5AF2020 | Financial Analysis and Valuation | Salva C. | 3 | Mandatory | 2 | EI+E |
| 5AF2039 | Finance Ethics | Fiole E. | 3 | Mandatory | 2 | E |
| | Elective courses | | 9 | Elective | | |
| **S3 - Autumn** | | | | | | |
| 5AF2028 | Equity Research Contest | Salva C. | 6 | Mandatory | 4 | EI |
| 5AF2030 | Alternative Investments | Hasler M. | 6 | Mandatory | 4 | EI |
| 5AF2048 | Financial Technology | Mihet R. | 3 | Mandatory | 2 | EI+E |
| 5AF2026 | Risk Management | Mihet R. | 3 | Mandatory | 2 | EI+E |
| | Elective courses | | 12 | Elective | | |
| **Total MScF - 90 ECTS** | | | **90** | | | |
| 5AF2044 | Master thesis | | 30 | | | |
| 5AF2045 | Internship thesis* | | 30 | | | |
| | Track in Data Science[1] | | 30 | | | |
| | Track in Sustainability[1] | | 30 | | | |
| **Total MScF - 120 ECTS** | | | **120** | | | |

*The duration of the internship is a minimum of 12 weeks full-time (3 months) and a maximum of 6 months (full-time or part-time).

[1]For track registration, refer to the programme directive or the programme website.

A reading week (*semaine de lecture*) takes place in week 45 of the autumn semester. It enables students, at mid-semester, to identify possible gaps in their understanding of the subject matter, the acquisition of knowledge and the learning of methods. The reading week is an integral part of the programme and may be accompanied by mock, or mid-term, exams in some courses.

**Grading Policy**

E: Exam during the exam session at the end of the semester.

EI: Evaluation organised during the semester.

Retake exam after 1 failure: unless otherwise specified in the course description, 2h written exam during the exam session at the end of the semester or the September session.

The detailed terms of evaluation are specified in the course descriptions.

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**List of elective courses :**

| Code | Course | Instructor | ECTS | H/week | Grading Policy |
|---|---|---|---|---|---|
| **S1 - Autumn** | | | | | |
| 5ER2001 | Principles in Economics | Wald G. | 6 | 2+2 | E |
| 5ST2001 | Econometrics | Starica C. | 6 | 4 | EI+E |
| 5AF2029 | Programming | Baset S. | 3 | 2 | E |
| 5ER2048 | Monetary Policy in a New Era | Canetg F. | 3 | 2 | EI |
| 5MI1005 | Data Science for Business | Cotofrei P. | 6 | 4 | EI+E |
| 5MI2017 | Data Management | Ciorascu I. | 6 | 4 | EI+E |
| 5AF2017 | Applied Macroeconometrics | Kaufmann D. | 6 | 4 | EI+E |
| 5ER2050 | Behavioral Economics | Zihlmann C. / Wald G. | 3 | 2 | E |
| 5ER2017 | Global Public Goods | Solleder J.-M. | 3 | 2 | E |
| 5ER2055 | Sustainable Cities | Loumeau G. | 6 | 4 | E |
| **S2 - Spring** | | | | | |
| 5AF2049 | Sustainable Finance | Efremenko P. | 6 | 4 | EI+E |
| 5AF2007 | Portfolio Management | Sonney F. | 3 | 2 | E |
| 5ER2052 | International Finance and Macroeconomics | Kaufmann D. | 3 | 2 | E |
| 5MI2045 | Computational Thinking** | Macko V. | 3 | 1 week | EI |
| 5EN2035 | Global Corporate Governance and Ethics | Duberry J. | 3 | 2 | EI |
| 2GG2036 | Cours interdisciplinaire en changements climatiques et sociétés | Schneider L. / Intervenant-e-s externes | 5-6[a] | 2 | EI |
| 5EN2050 | Colloquium on Academic Writing | Reuter E. | 3 | 2 | EI |
| 5MI2003 | Business Analytics | Cotofrei P. | 6 | 4 | EI+E |
| 5MI2018 | Machine Learning | Ciorascu I. | 6 | 4 | EI+E |
| 5ER2020 | Applied Microeconometrics | Lanz B. | 6 | 4 | EI+E |
| 5ER2053 | Economic Research and GenAI | Gallea Q. | 3 | 2 | EI+O |
| 5ER2023 | Environmental Economics | Mathys N. | 3 | 2 | E |
| 5MI2019 | Managing Data Science Projects | Stoffel K. | 3 | 2 | EI+E |
| **S3 - Autumn** | | | | | |
| 5AF2050 | Sustainable Investing | Bolliger G. | 3 | 2 | E |
| 5ST2001 | Econometrics | Starica C. | 6 | 4 | EI+E |
| 5AF2029 | Programming | Baset S. | 3 | 2 | E |
| 5MI1005 | Data Science for Business | Cotofrei P. | 6 | 4 | EI+E |
| 5MI2017 | Data Management | Ciorascu I. | 6 | 4 | EI+E |
| 5AF2017 | Applied Macroeconometrics | Kaufmann D. | 6 | 4 | EI+E |
| 5ER2001 | Principles in Economics | Wald G. | 6 | 2+2 | E |
| 5ER2050 | Behavioral Economics | Zihlmann C. / Wald G. | 3 | 2 | E |
| 5ER2048 | Monetary Policy in a New Era | Canetg F. | 3 | 2 | EI |
| 5ER2017 | Global Public Goods | Solleder J.-M. | 3 | 2 | E |
| 5ER2055 | Sustainable Cities | Loumeau G. | 6 | 4 | E |
| **Off-semesters**[b] | | | | | |
| 5AF2040 | Internship with report[c] | | 3 | | |
| 5AF2031 | CFA level I | | 6 | | |
| 5AF2042 | GARP/FRM part I exam | | 6 | | |
| 5AF2043 | CFA Institute Research Challenge Final | | 3 | | |

It is possible to take a course (from another faculty/university) that is not on this plan, subject to the agreement of the programme director. Requests need to be sent, by e-mail, to the Study Advisor (conseil-etudes.SECO@unine.ch)

**Course enrolment is done in IS-Academia during the course registration period for the spring semester 2027.

[a] See course description for the allocation of 6 credits.

[b] For course enrollment details, see https://www.unine.ch/seco/formations/master-of-science-in-finance/current-students/

[c] The duration of the internship is a minimum of 6 weeks full-time (1.5 months) and a maximum of 6 months (full-time or part-time).

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**To obtain the Data Science or the Sustainability Track :**

1. **Students need to obtain 120 ECTS (60 mandatory courses and 60 elective courses)**
2. **Students need to take at least 30 ECTS in the data science/sustainability course list (see below)**

| **Track in Data Science (30 ECTS in the following list)** | | | | | | |
|---|---|---|---|---|---|---|
| **Code** | **Course** | **Instructor** | **ECTS** | **Semester** | **H/week** | **Grading Policy** |
| 3IN2011 | Machine Learning and Data Mining[c] | Dimitrakakis C. | 5 | Autumn | 4 | E |
| 5AF2017 | Applied Macroeconometrics | Kaufmann D. | 6 | Autumn | 4 | EI+E |
| 5AF2048 | Financial Technology | Mihet R. | 3 | Autumn | 2 | EI+E |
| 5ST2001 | Econometrics | Starica C. | 6 | Autumn | 4 | EI+E |
| 5AF2029 | Programming | Baset S. | 3 | Autumn | 2 | E |
| 5AF2026 | Risk Management | Mihet R. | 3 | Autumn | 2 | EI+E |
| 5MI1005 | Data Science for Business | Cotofrei P. | 6 | Autumn | 4 | EI+E |
| 5MI2017 | Data Management | Ciorascu I. | 6 | Autumn | 4 | EI+E |
| 5AF2007 | Portfolio Management | Sonney F. | 3 | Spring | 2 | E |
| 5MI2012 | Computational Thinking** | Macko V. | 3 | Spring | 1 week | EI |
| 5MI2018 | Machine Learning | Ciorascu I. | 6 | Spring | 4 | EI+E |
| 5MI2003 | Business Analytics | Cotofrei P. | 6 | Spring | 4 | EI+E |
| 5ER2020 | Applied Microeconometrics | Lanz B. | 6 | Spring | 4 | EI+E |
| 5ER2053 | Economic Research and GenAI | Gallea Q. | 3 | Spring | 2 | EI+O |
| 3IN2064 | Reinforcement Learning and Decision Making Under Uncertainty[c] | Dimitrakakis C. | 5 | Spring | 4 | EI+E |
| 5MI2019 | Managing Data Science Projects | Stoffel K. | 3 | Spring | 2 | EI+E |
| **Track in Sustainability (30 ECTS in the following list)** | | | | | | |
| **Code** | **Course** | **Instructor** | **ECTS** | **Semester** | **H/week** | **Grading Policy** |
| 5AF2050 | Sustainable Investing | Bolliger G. | 3 | Autumn | 2 | E |
| 5ER2017 | Global Public Goods | Solleder J.-M. | 3 | Autumn | 2 | E |
| 5ER2055 | Sustainable Cities | Loumeau G. | 6 | Autumn | 4 | E |
| 5AF2019 | ESG Disclosure | Fiechter P. | 3 | Spring | 2 | EI |
| 5AF2039 | Finance Ethics | Fiole E. | 3 | Spring | 2 | E |
| 5AF2049 | Sustainable Finance | Efremenko P. | 6 | Spring | 4 | EI+E |
| 5EN2035 | Global Corporate Governance and Ethics | Duberry J. | 3 | Spring | 2 | EI |
| 5ER2023 | Environmental Economics | Mathys N. | 3 | Spring | 2 | E |
| 2GG2036 | Cours interdisciplinaire en changements climatiques et sociétés | Schneider L. / Intervenant-e-s | 5-6[a] | Spring | 2 | EI |
| 5ER1021 | Sustainable Development Economics[b] | Strobl R. | 3 | Spring | 2 | E |

**Course enrolment is done in IS-Academia during the course registration period for the spring semester 2027.
[a] See course description for the allocation of 6 credits.
[b] This course may only be chosen by students who have not yet validated the course as part of their bachelor's degree at the University of Neuchâtel.
[c] Enrollment in the course and exam is subject to specific conditions and must be completed within the designated deadlines: see mcs.unibnf.ch/organization/

## LEARNING OUTCOMES

| *On completion of this programme, students will be able to:* |
|---|
| **Overarching skill** |
| • Develop expertise in finance using financial theory, economic reasoning, state-of-the art quantitative techniques and sustainable behavior. |
| **Knowledge and understanding acquired in the program:** |
| • Describe the mechanics of equity, fixed income and derivatives markets |
| • Describe economic theories used in the process of conducting financial decisions |
| • Identify econometrics and programming techniques to build optimal strategies for financial and firmdecision-making |
| **Applying knowledge and understanding:** |
| • Apply financial theory to solve a variety of problems in investment management, corporate finance, and risk management |
| • Build expectations about corporate and financial risks |
| • Use data and modelling techniques to reach financial decisions |
| **Making judgements:** |
| • Build recommendations based on the financial position and performance of a firm |
| • Justify strategies based on the financial needs, goals, or profile of a client, a corporation, a bank or a firm |
| • Evaluate the ethical implications of financial decision-making and financial practices |
| **Communication skills:** |
| • Synthetize information in verbal presentation and written reports |
| • Conduct discussions with actors active in the financial and corporate sector |
| • Share knowledge and ideas effectively in team and through team-work |
| **Learning skills:** |
| • Acquire skills and information in an independent manner |
| • Adapt to the changing business and working environment |
| • Choose appropriate financial research methodology to develop new and innovative solutions |