



## Programme Curriculum for Master Programme in Finance

### 1. Identification

Name of programme	Master Programme in Finance
Scope of programme	60 ECTS
Level	Master level
Programme code	EAGFN
Decision details	Board of the School of Economics and Management, 25 September 2015
Amendment details	31 May 2017

### 2. Programme description

This programme builds on previous studies in finance and is directed to students with an undergraduate in business or economics. The programme extends students' knowledge of all major areas of financial decision-making. It prepares students for future careers in the financial services sector, e.g., in commercial and investment banking, insurance firms and supervisory authorities, in corporate finance functions in financial and non-financial firms. It also prepares students for further studies in finance.

The programme serves to provide the student with a thorough understanding of and training in effective identification, analysis, and resolution of complex financial problems. The basis for the programme is the belief that the true nature of advanced higher education is research driven and the programme is based on the principle of academic rigour in practical application.

Important objectives are to familiarise students with the main areas of investigation and research techniques used in finance, and to give students the general knowledge required to specialise in their preferred area of finance.

#### *Career opportunities*

There is a broad and extensive labour market for finance professionals and specialists both nationally and internationally. The demand for the competence that finance professionals and specialists at this level possess is growing. A master degree in finance is an entry requirement for students aiming for a career in finance, irrespective of whether they aim for the financial services sector, e.g., commercial and investment banking, insurance firms and supervisory authorities, or in corporate finance functions of financial and non-financial firms. It is quite common for European universities to give one year-long specialized master programmes in finance, and this programme follows this tradition. The common denominator for those programme have been over the past years that have provided very good international career opportunities for graduates.

*Connections to further studies*

Students completing master's programmes are eligible for admission to the PhD programmes in business or economics at the School of Economics & Management if they meet the special prerequisites required for each programme. Students with excellent results are also eligible for an additional extra semester at one of the School's international partner universities. Opting for such an additional "master-class" semester has proven very beneficial for future career development.

**3. Learning outcomes**

The programme builds on previous studies at the undergraduate level in finance related subject matters. In accordance with the Higher Education Ordinance, a Master of Science (60 credits) is awarded to students who at the completion of the programme accomplish the following:

*Knowledge and understanding*

- demonstrate knowledge and understanding within the field of finance, including both a broad command of the field and deeper knowledge of certain parts of the field, together with insight into current research and development work; and
- demonstrate deeper methodological knowledge in the field of finance.
- demonstrate thorough knowledge of financial decision-making, with particular emphasis on asset pricing, corporate funding and valuation, and risk management;
- demonstrate thorough understanding of relevant econometric techniques;

*Skills and abilities*

- demonstrate an ability to integrate knowledge and to analyse, assess and deal with complex phenomena, issues and situations, even when limited information is available;
- demonstrate an ability to independently identify and formulate issues and to plan and, using appropriate methods, carry out advanced tasks within specified time limits;
- demonstrate an ability to clearly present and discuss their conclusions and the knowledge and arguments behind them, in dialogue with different groups, orally and in writing; and
- demonstrate the skill required to participate in research and development work or to work in other advanced contexts.
- demonstrate an ability to work in multi-cultural teams

*Judgement and approach*

- demonstrate an ability to make assessments within finance, taking into account relevant scientific, social and ethical aspects, and demonstrate an awareness of ethical aspects of research and development work;
- demonstrate insight into the potential and limitations of science, its role in society and people's responsibility for how it is used; and
- demonstrate an ability to identify their need of further knowledge and to take responsibility for developing their knowledge.

*Independent project (degree project)*

For a Master of Science (60 credits) students must have completed an independent project (degree project) worth at least 15 higher education credits in finance, within the framework of the course requirements.

**4. Course information**

The programme comprises a total of 60 ECTS, consisting of eight compulsory courses covering theories, research methods, and applications in finance. The list of courses is not fixed and can be

adapted in the future according to developments in the discipline, changes in demand from students and other interested parties, etc.

The programme of study is divided into two semesters, which consist in total of four study periods. In the first semester, focus is primarily on advancing students' knowledge of the theory of finance and econometric techniques used in financial research. The two courses offered in the first study period are designed to provide a common and advanced theoretical and methodological foundation among students. Both courses advance students' prior knowledge of financial theory and econometrics. In the second study period, students follow two courses that further advance and specialise their knowledge of the theory of finance and financial econometrics.

In the second semester, focus is instead shifted more towards application and problem solving. The courses in the third study period focus on applying theories and methodologies to financial management within firms and financial institutions. The second semester ends with a degree project in finance in the fourth study period. Through the project and the project report students demonstrate their ability to use and integrate their acquired knowledge to identify, analyse, and solve financial problems and evaluate, present, and document the result.

The programme consists of the following eight courses:

*Foundations of Finance, 7.5 ECTS*

Beginning with a microeconomic foundation to finance, the course provides an in-depth analysis of portfolio choice and equilibrium pricing of financial assets.

*Financial Econometrics, 7.5 ECTS*

The course covers mathematical and statistical techniques that have immediate applications in finance. It is designed to equip students with relevant knowledge of methods for univariate and multivariate cross-sectional and time-series analyses and the ability to apply them to finance problems.

*Theory of Corporate Finance, 7.5 ECTS*

The course provides an advanced, organised, comprehensive, and, in particular, applied coverage of corporate finance. Topics covered include capital, cash, and risk management, corporate governance and ownership, and corporate control and financial restructuring. Cases are used extensively to provide understanding of how to apply theory.

*Empirical Finance, 7.5 ECTS*

The course covers empirical models in finance. It begins with an overview of more advanced econometric techniques, such as maximum likelihood and GMM. The course then deals with applying econometric techniques to test financial models, such as tests of information efficiency, market microstructure models, event studies, asset pricing, and pricing of fixed income instruments.

*Managerial Finance, 5 ECTS*

The course provides students with knowledge about measurement and management of corporate valuation, merger and acquisitions, valuation of real options and corporate exposure to macroeconomic risks. The ultimate test of corporate strategy is whether it creates economic value for shareholders. But how valuable is a particular strategic alternative, and how do risks in the corporate environment influence value creation? These questions are at the centre of the course. Cases are used extensively to provide an understanding of how to apply theory.

*Financial Valuation and Risk Management, 5 ECTS*

The course develops the students' understanding of models for financial risk management and their ability to apply these models to real world problems. The course deals with topics such as the

measurement and management of credit risk and Value-at-Risk, and the implications of the Basel regulations.

*Fixed Income and Derivatives, 5 ECTS*

The course covers two different but related topics. The first part of the course deals with pricing and hedging fixed income security and modelling yield curve, and the second part of the course covers standard and complex derivative instruments in the markets and the application of these instruments for risk management.

*Degree Project in Finance, 15 ECTS*

In the project paper, students should display their ability to apply, compile, and advance knowledge and skills acquired during the previous courses. Through the project students should demonstrate their ability to identify, analyse, and solve financial problems and to evaluate, present, and document their results.

Schematically, the programme has the following outline:

Semester 1		Semester 2	
Period 1 Autumn: first half	Period 2 Autumn: second half	Period 3 Spring: first half	Period 4 Spring: second half
Foundations of Finance (7.5 ECTS)	Theory of Corporate Finance (7.5 ECTS)	Managerial Finance (5 ECTS)	Degree Project in Finance (15 ECTS)
Financial Econometrics (7.5 ECTS)	Empirical Finance (7.5 ECTS)	Financial Valuation and Risk Management (5 ECTS)	
		Fixed Income and Derivatives, (5 ECTS)	

## 5. Degree

Upon completion of the programme a Master of Science in Finance (60 credits) will be awarded in compliance with the National Higher Education Ordinance (SFS 2006:1053). In Swedish the degree awarded will be: *Filosofie magisterexamen i finans*.

## 6. Admission requirements and selection criteria

An undergraduate degree (BA/BSc) with at least 90 ECTS credits in business administration and/or economics which must include a course in basic microeconomics (can be part of a course in basic economics), a course in intermediate finance, and a course in econometrics or statistics. English 6.

*Recommended additional qualifications*

The programme requires students to have a basic knowledge of finance and statistics upon admission. We therefore strongly recommend that students have prior knowledge of the following.

- Finance, including net present value, risk and return, diversification, asset pricing, market efficiency, cost of equity, weighted average cost of capital, forwards, futures, swaps, options,

hedging, capital structure, dividend policy, information asymmetry, agency costs, interest rates, and exchange rates.

- Financial accounting, including the structure and format of financial statements, analysis and interpretation of accounts, profit measurement, the cost and revenue concepts, and ratio analysis of financial statements.
- Mathematics, including algebraic rules, solving single and multiple equations, solving quadratic equations, polynomials, exponential function and (natural) logarithms, rules of differentiation, and finding extreme values for a function.
- Microeconomics, including expected utility, preferences, risk aversion, rational choice, market equilibrium, elasticity, and perfect competition. A course in intermediate microeconomics is recommended.
- Statistics, including descriptive statistics, probability, normal distribution, random sampling, hypothesis testing, correlation, and regression analysis.

#### *Selection criteria*

Selection is based on academic merits from university studies. This implies that an assessment will be made of the grades from previous studies at the undergraduate level. In this assessment special weight will be given to grades for studies in finance, econometrics/statistics, and degree projects related to these fields of study.

## 7. Other information

Courses at the School of Economics and Management are graded according to the criterion-referenced principal grades A-F:

GRADE		POINTS	CHARACTERISTIC
A	Excellent	100-85	A distinguished result that is excellent with regard to the following aspects – theoretical depth, practical relevance, analytical ability and independent thought.
B	Very good	84-75	A very good result with regard to the above mentioned aspects.
C	Good	74-65	The result is of a good standard with regard to the above mentioned aspects and lives up to expectations.
D	Satisfactory	64-55	The result is of a satisfactory standard with regard to the above mentioned aspects and lives up to expectations.
E	Sufficient	55-50	The result satisfies the minimum requirements with regard to the above mentioned aspects, but not more.
F	Fail	49-0	The result does not meet the minimum requirements with regard to the above mentioned aspects.

#### *Academic Integrity*

The University views plagiarism very seriously, and will take disciplinary actions against students for any kind of attempted malpractice in examinations and assessments. The penalty that may be imposed for this, and other unfair practice in examinations or assessments, includes suspension from the University.