Programme Syllabus
for
Master of Science in Finance
120 higher education credits

Second Cycle

Established by the Faculty Board of the School of Business, Economics and Law, University of Gothenburg, on November 14, 2006, last revised on April 28, 2011.
1. Decision and Guidelines

The study programme for the Master of Science in Finance, 120 higher education credits, hec, (equals 120 ECTS credits), was established by the Faculty Board of the School of Business, Economics and Law, on November 14, 2006 and last revised on April 28, 2011. The programme syllabus applies as from autumn term of 2011.

2. General Objectives

Second cycle education shall according to the Swedish Higher Education Act (HEA) build on knowledge that students acquire in first cycle education or corresponding knowledge (see Appendix 1, HEA, ch. 1:9) The general objectives for a Master (120 credits) are stated in Appendix 2, the Higher Education Ordinance (see Appendix 1).

3. Programme Specific Objectives (learning outcomes)

After successfully completing the programme the student should be able to demonstrate a deepened analytical knowledge and an operational understanding of financial concepts; thereby having acquired sufficient skills to be able to apply financial theory to practical problems, as well as having attained a working knowledge of empirical tools, including software programmes from professional financial vendors and investment banks.

4. Organisation

All Graduate School programmes are managed by the Dean of the Graduate School while the operational responsibility rests with the Director of Studies. Each Graduate School programme has a programme coordinator and an advisory programme committee responsible for programme and course content.

5. Programme Disposition and Content

*The disposition below applies to students admitted 2011*

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Corporate track</th>
<th>Investment track</th>
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</thead>
<tbody>
<tr>
<td>Autumn Term Period 1</td>
<td>GM0702 Mathematics, 7.5 hec</td>
<td>Depending on the student’s background: GM1001 Corporate Finance, 7.5 hec or GM0701 Advanced Microeconomic Theory, 7.5 hec</td>
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| Autumn Term Period 2                  | GM 0715 Graduate Econometrics, 7.5 hec  
                                      | GM1002 Financial Institutions and Markets, 7.5 hec |
|--------------------------------------|------------------------------------------|
| Spring Term Period 3                 | GM1003 Investments, 7.5 hec              |
|                                      | GM0716 Advanced Industrial Organization, 7.5 hec  
                                      | GM1008 Financial Econometrics, 7.5 hec           |
| Spring Term Period 4                 | *Electives 15 hec  
                                      | *Electives 15 hec                                  |

### Year 2

<table>
<thead>
<tr>
<th>Period</th>
<th>Corporate track</th>
<th>Investment track</th>
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</thead>
<tbody>
<tr>
<td>Autumn Term Period 1</td>
<td>GM1015 Advanced Corporate Finance, 7.5 hec</td>
<td></td>
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<tr>
<td></td>
<td>*Elective, 7.5 hec</td>
<td></td>
</tr>
<tr>
<td>Autumn Term Period 2</td>
<td></td>
<td>*Electives, 7.5 hec</td>
</tr>
<tr>
<td>Spring Term Period 3-4</td>
<td>GM1060 Master Degree Project (30 hec)</td>
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*The electives are tentative depending upon faculty changes and number of registered students and may vary from year to year.

Examples of courses offered are, for year 1, International Finance, Behavioural Corporate Finance, Private Equity and Investment II, for year 2, Applied Portfolio Management, Topics in Corporate Finance, Credit Risk Modelling and International Macroeconomics and Finance.

The programme covers four academic terms of full-time study (120 hec) including three terms of courses (90 hec) and one term of Master Degree Project (thesis writing, 30 hec). The student can choose between two tracks with several courses in common, one corporate finance and one investment track. The programme comprises core courses, elective courses and Master Degree Project. Core courses are programme specific and include courses in methods with the emphasis on quantitative and qualitative analysis. Elective courses from other master programmes, or in special cases, and only after permission granted by the Graduate School, second cycle courses at other universities may be an option.

Each term is divided into two periods, and each course is 7.5 hec, except where noted.
Only students with very good study results at the Graduate School, excellent English language proficiency and a clear purpose for their exchange period may be permitted to study as exchange students at our partner universities.

The Master of Science programme in Finance is designed to meet the increasing demand for professionals with top quality skills; from the private sector as well as from the public sector, in Sweden and internationally. Valuation under uncertainty is the basic problem on which the programme is focused; and the toolbox of methods, which is provided to the student in Finance, has a proven applicability within many sectors outside the traditional investment banking community. Accounting, Business Control and Project Management are a few of the areas adjacent to Finance, where the financial techniques and concepts are increasingly being used.

The Master of Science degree is an additional step compared to the Bachelor degree in Business Administration or Economics. The Master programme focuses on the problems of an advanced practitioner. This is exemplified by prestigious representatives from the business community that give seminars and classes to the students as well as by the fact that several courses are held in the Finance Laboratory. The Finance Laboratory environment is a unique opportunity for the student to access state-of-the-art technology and investment bank research. This direction of study together with the access to unique facilities will leverage the students’ opportunities towards employability.

The initial part of the programme (Year 1, period 1), consisting of three intensive courses (students take two of these), enables the students with a Bachelors degree, but with different majors, to effectively participate in the programme. These second cycle courses; Mathematics (core), Advanced Microeconomic Theory and Corporate Finance, cover the institutional and methodological background for future courses. After the core course Mathematics, the student takes one of the two additional courses that complete his/her previous studies most pertinently. Course selection is dependent on the student’s background and decided by the Graduate School.

The following part (Year 1, periods 2-4) consists of courses dealing with financial institutions and markets, econometrics and investment. The courses give the student the theoretical knowledge and empirical methodology necessary for independent work. Upon completion of these courses the student chooses one of the two tracks, Corporate or Investment. Depending on the students’ academic and/or professional background it is natural to specialize in one of the two tracks offered within the Master of Science in Finance programme. These tracks are mainly to be seen as recommendations and it is possible to choose courses from both tracks. It should,
however, be noted that compared to the "Corporate track", the "Investment track" requires a higher level of prior knowledge of quantitative methods and mathematics.

In the last part of the programme (Year 2, periods 1-4) the student has one core course, Advanced Corporate Finance, and one track specific course. During period 2 the student chooses elective courses within the respective track. The final phase, periods 3-4, consists of the Master Degree Project (thesis writing, 30 hec).

**Tracks**

**Investment**

The objective of the investment track is to expose the student to main problems and methods associated with the pricing of securities, their derivatives and company valuation as well as to situations when common methodologies are not applicable. Since several courses take place in the Finance Lab, this will enable the students to acquire an in-depth practical knowledge of techniques used by professionals. The target job-market is that of investment banks and asset managers.

Students who specialise in the more technical parts of this track (financial econometrics, asset pricing and credit risk modelling) will also be prepared for an advanced specialist career as a financial analyst. The growing demand for quantitative skills within this group is well documented. The innovation speed within the financial industry is formidable and it is often required of financial analysts that they should be able to disseminate and apply results from research journals. The ability to understand solutions to optimisation problems subject to uncertainty requires an additional quantitative apparatus. The target job-market is among advanced financial analysts at investment banks and asset managers.

**Corporate**

The objective of the corporate track is to give the student the skills necessary to appraise projects and non-listed companies or entities within a company. The approach is similar, but techniques are different from the ones used when evaluating listed companies. Special attention is also given to alternative buy-out and exit strategies as well as to optimisation of capital structure. The target job-market is that of business controllers, treasury officers of a company and private equity analysts.

**Master Degree Project (thesis)**

With either of these specialist backgrounds the student should be ideally positioned to write a good thesis. The programme will give the student ample opportunity to acquire a solid theoretical and quantitative understanding of both financial theory and the empirical skills necessary for independent work. Equally important, the programme will expose the student to a range of diverse problems and solutions
from the professional community, which increases the probability of finding an interested party among professionals with whom to interact, when writing the thesis and, potentially, afterwards in the job-market.

6. Tuition and Examination

The language of instruction is English. Courses will include lectures, seminars and case studies. The students will also work together in small groups, according to educational principles such as problem-based learning, experiential learning and action learning. Group reports will be assessed and graded individually, as will individual term papers and individually written exams.

The courses will be examined separately. Each course is graded with Pass with Distinction (väl godkänd, VG), Pass (godkänd, G) or Fail (underkänd, U).

The Graduate School is obliged to offer the exam at least five times during the course of each two year period. Students who have made five unsuccessful attempts to pass an exam have lost the possibility of obtaining the Master of Science Degree.

7. Admission Requirements and Selection Process

General Entrance Requirements

The applicant must hold the minimum of a Bachelors Degree (i.e. the equivalent of 180 higher education credits, (hec)) with a major subject, from an accredited university. The university has to be listed in the latest edition of the International Handbook of Universities/World List of Universities and other Institutions of Higher Education (the UNESCO-based worldwide association of higher education institutions). All credits in the Degree need to be from an accredited university. The applicant’s university education must also include a thesis, term paper or equivalent proof of proficiency in academic writing.

English Proficiency Requirements

The applicant must prove English proficiency by one of the following:

I. English language test
   - TOEFL IBT (internet based) test result of at least 90 points, with score of at least 20 in written test

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1 The equivalent to a Swedish Bachelors Degree depends on 1) Length of education 2) grade/division/class of your total degree.

2 http://www.iau-aiu.net/onlinedatabases/list.html
➢ TOEFL (paper based) test result of at least 575 points, with score of at least 4.5 in written test
➢ IELTS test result of at least 6.5 with no individual score below 5.5

The test result must not be older than 2 years on the last date for application.

II. Bachelor’s Degree, based upon at least 3 years of full-time studies, from an education with English as the only language of instruction (with the exception of students from Pakistan and Bangladesh). (Please note! Language of instruction must be indicated on official degree certificate/transcript of records/diploma supplement or on the University’s official website).

III. Bachelor’s Degree with a major in English language.

IV. English level B at the Swedish Upper Secondary School.

Programme Specific Entrance Requirements- Master of Science in Finance

A) The applicant’s university education must include the following courses:
   i. Corporate finance
   ii. Microeconomics, at an intermediate level (in total 15 hec in microeconomics or equivalent)

   In addition the education must include a minimum of 15 hec in Statistics, or 7.5 hec in Statistics and 7.5 hec in quantitative methods and/or Mathematics.

   Or

B) The applicant’s university education must include at least a Bachelor’s Degree (i.e. the equivalent of 180 hec) in Mathematics or in an Engineering programme with a quantitative or mathematical orientation.

Selection Process

In order to be eligible the applicant must meet the General Entrance Requirements, the English Proficiency Requirements as well as the Programme Specific Entrance Requirements.

The selection of eligible students is based on GMAT result or GRE General Test result. The GMAT or GRE General Test result must not be older than 5 years on the last date for application.
Should the situation arise that a group ties due to equal qualifications, selection is made according to the applicant’s first choice of programme. If this process does not resolve the tie, a final selection is made by ballot.

8. Degree Certificate and Degree Title

Upon completion (receiving a minimum grade of Pass) of all the courses and the degree project, and fulfilment of the requirements given above, students will receive a Master of Science (120 credits) with a Major in Finance.

9. Programme Evaluation

All courses in the programme will be anonymously evaluated by the students upon completion. The results of the evaluation will be communicated to the students and will function as a guide for the development of the course and of the programme.