Programme Curriculum for the Master’s Programme in Economics

1 Introduction
The Curriculum for the Master’s Programme in Economics consists of two parts: a common curriculum and a programme-specific curriculum. The Common Part applies to all Bachelor’s and Master’s Programmes at the Faculty of Social Sciences, and lays out the common rules of the all the social-science programmes.

The Programme Curriculum specific to Economics describes the academic elements of the Master’s Programme in Economics.

The Dean of the Faculty of Social Sciences approved this curriculum in January 2015 and the curriculum becomes effective on 1 September 2015.

Interim Provisions – Discontinuation of the 2008-Master’s Curriculum:

The 2008-master’s curriculum will be discontinued on 31 January 2017. At this point, students enrolled under the 2008-master’s curriculum will be transferred to the 2015-master’s curriculum.

Until this date, students who wish to transfer to the 2015 curriculum may request a transfer from the Board of Studies.

2 Title and Affiliation
On successful completion of the Master’s Programme in Economics, graduates are entitled to use the title cand.polit. or the optional title cand.oec. In English: Master of Science (MSc) in Economics. By choosing particular courses – as described in this curriculum – graduates earn the right to use the title Cand.polit. (finansiering). In English: Master of Science (MSc) in Economics (Finance).

The programme is under the orders of the Board of Studies in Economics.

The Corps of External Examiners of the Economics Programme provides all external examiners for the programme.

3 Purpose and Competence Profile

3.1 Purpose
The Master’s Programme in Economics is an independent and complete research-based education. The programme is aimed at further developing the knowledge, skills and competences that students have acquired through their bachelor education. The aim of the Master’s Programme is to:
1. Provide the students with the option to qualify and specialize in economic theory and econometric methods and to learn from other social science disciplines.

2. Equip students with advanced academic knowledge, theoretical qualifications and methodological skills so that students are capable of independently identifying, formulating and solving advanced complex problems in economics and econometrics.

3. Equip students with the competences necessary to find employment in economic professions as well as qualify them for admission to PhD programme in economics.

### 3.2 Competence Profile

The aim of the research based Master’s Programme at University of Copenhagen is to offer students a solid and internationally recognized development of their competencies in economics, econometrics and the applications of these in economics and business problems. The education offers students a large variety of freedom of choice which allows them to specialize in advanced economics and econometrics. Moreover, there are options also to choose to combine these with studies within other social science disciplines. Students can further obtain a degree in economics with a specialization in finance.

The education has been constructed in order to further the ability of continuing, critical, and personal knowledge development. A number of advanced economic theory and methodological courses will bring students’ knowledge to a high level by international standards.

After having completed the education, a Master in Economics should possess the following knowledge, skills and competences:

**Knowledge**

- Deep and comprehensive knowledge about advanced aspects of economic theory
- Knowledge about how economic theory and methods can be applied on contemporary economic problems
- Knowledge of advanced statistical and econometric methods
- Critical and independent reflexion over advanced economic theory and methods

**Skills**

- Independent and flexibly be able to use acquired knowledge on advanced statistical and econometric techniques
- Use advanced economic theory in a long list of fields, e.g. public economics, development economics, international economics, finance etc.
- Skills in analysing a complex economic problem using advanced economic theory and methods
• Independently be able to construct, conduct and interpret own analyses using statistical and econometric methods
• Be able to disseminate complex economic problems in writing and orally

Competences

• Independently be able to identify and acquire new research based knowledge on advanced economic theory and methods and master advanced economic theories and models
• Independently be able to formulate an analytical solution to an economic problem by combining advanced economic theory, data and statistical and econometric methods
• Be able to define and carry through complicated economic analyses in a competent manner and to explain and interpret the analytical results and draw own policy conclusions

3.3 Admission Requirements and Restrictions

The programmes below directly qualifies graduates to the Master’s Programme in Economics at the University of Copenhagen:

• The Bachelor’s Programme in Economics at the University of Copenhagen
• The Bachelor’s Programme in Economics – the Socioeconomic Line at the University of Southern Denmark
• The Bachelor’s Programme in Economics at Aarhus University
• The Bachelor’s Programme in Mathematics-Economics at the University of Copenhagen
• The Bachelor’s Programme in Mathematics-Economics at Aarhus University
• The Bachelor’s Programme in Agricultural Economics at the University of Copenhagen
• The Bachelor’s Programme in Economics and Business Administration specialised in Mathematics (HA-Matematik) at CBS.

Graduates with a Bachelor in Economics from the University of Copenhagen have a legal claim to admission to the Master’s Programme in Economics, if they apply for admission directly after completion of their bachelor’s programme.

Applicants from other universities in Denmark, including applicants who have completed a Bachelor Programme in Economics and Business Administration (HA-Almen) at CBS, AU or SDU, or a Bachelor in Economics at AAU and abroad, may be admitted on the basis of a specific and individual, academic assessment, provided that their qualifications are equivalent to the Bachelor Programme in Economics at the University of Copenhagen. The assessment will consider the requirements below:
The programme must be at the same level as the Bachelor’s Programme in Economics at the University of Copenhagen.

- Estimated qualifications corresponding to microeconomics, macroeconomics, and econometrics at the highest level in the Bachelor’s Programme in Economics (i.e. Micro II, Macro II, Econometrics I and Econometrics II)
- Language proficiency corresponding to English at level B in the Danish upper-secondary school. Non-Danish students enrolled at the master’s programme must document their English proficiency, if their native language is another language than English.
- A professional bachelor degree is not considered sufficient.

Admission to the Master’s Programme in Economics is not subject to restriction.

Supplementary activities, e.g. single courses or similar, may be included in the assessment of the admission requirements to the master’s programme up to and including admission on 1 September 2016. After this point, only the bachelor’s degree can be included in the assessment of the admission requirements.

If the applicants miss up to 15 ECTS requirements, the Study Board, cf. the Degree Program Order, can choose to accept the applicant on the condition of supplementary courses on the Master’s degree program with courses from the Bachelor’s degree program, up to a maximum of 15 ECTS. The supplementary courses must be passed no later than after one-year enrollment on the Master’s degree program.

The supplementary courses are not included in the calculation of the requirement to register for 30 ECTS per semester.

The student has two attempts to pass the required supplementary courses. If the student does not pass the required supplementary courses, the student will be withdrawn from the Master’s degree program, cf. the Ministerial Order on Admission.

### 4 The Content and Academic Profile of the Programme

See section 6, ‘Course catalogue’, for a full description of the content, objectives, etc. of the all courses in the programme. Additional and more elaborate information is available in the online course catalogue at [http://kurser.ku.dk/](http://kurser.ku.dk/).

The programme consists of constituent courses corresponding to 90 ECTS credits (including the thesis), providing students with the particular academic competences associated with the programme. All courses and seminars at the Department of Economics at the University of Copenhagen are defined as constituent. When transferring credits from other institutions, including those from stays abroad, the total of non-constituent courses (neighbouring courses) cannot exceed 30 ECTS (see section 4.3).

The programme consists of the following modules:

- 15 ECTS Compulsory Courses: ‘Micro III’ (7.5 ECTS) and ‘Macro III’ (7.5 ECTS). The students must take these during their first semester. Students, who already passed these courses as part of their admission qualifications, must take elective courses corresponding to 15 ECTS instead. Such
students must take at least 10 ECTS externally assessed elective courses, and at least 35 ECTS elective courses assessed with grades.

- 15 ECTS Economics Seminars taken during the first, second or third semester.
- 60 ECTS Elective Courses in Economics taken during the first, second or third semester. At least 20 ECTS of these must be assessed with grades. For students, who passed Micro III and Macro III as part of their admission qualifications, at least 35 ECTS elective courses must be graded.
- A thesis equal to 30 ECTS (see the University Programme Order (Uddannelsesbekendtgørelsen)). The thesis must be written during the fourth semester.

Elective courses in economics include courses offered by the Department of Economics, as well as courses in economic theory and methodology, econometrics, and mathematics offered at other programmes (see section 4.3. on credits). As part of the elective courses, students may take a maximum of 30 ECTS neighbouring courses, i.e. courses in the social sciences in the broadest sense.

A 30 ECTS mobility window may be taken in the second or third semester. The seminars may be taken during the first, second or third semester on condition that the student comply with the 30 ECTS-registration requirement.

The programme structure is outlined below. Students are free to move seminars and elective courses around, on condition that the 30 ECTS-registration requirement is observed. The thesis and compulsory courses are fixed respectively to the fourth and first semester:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>4th</td>
<td>Thesis, 30 ECTS credits</td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>Elective courses (22.5 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar (7.5 ECTS)</td>
<td></td>
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<tr>
<td>2nd</td>
<td>Elective courses (22.5 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seminar (7.5 ECTS)</td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>Elective courses (15 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Micro III (7.5 ECTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Macro III (7.5 ECTS)</td>
<td></td>
</tr>
</tbody>
</table>

From the group of elective courses in economics, students may choose to write up to two co-curricular written assignments, each equal to 0.5–7.5 ECTS. See section 6 on co-curricular written assignments.

A list of compulsory and elective courses in economics is found in section 6.1 (see also section 4.3 on credit transfers).

In unusual circumstances, the Board of Studies may grant exemptions from the placement of the fixed elements, including the rule that the thesis concludes the master’s programme, cf. the University Programme Order (Uddannelsesbekendtgørelsen).

### 4.1 Specialisations

#### 4.1.1 Master’s in Economics (Finance)
Students at the Master’s Programme in Economics may choose one particular line of specialisation, i.e. the Master’s in Economics (Finance).

To qualify for the title Cand.polit. (finansiering), in English: Master of Science (MSc) in Economics (Finance), students, must have taken at least 45 ECTS F-marked finance courses, completed at least one F-marked economic seminar, and written their thesis within the field of financing.

Students specialising in finance must specify this on their thesis contract.

4.1.2 Course Packages

Upon admission to the Master’s Programme, all students must indicate their preferred course package, choosing from the six packages described below. The course packages primarily serve as a guide or aid to students, who want to specialise or achieve a particular academic profile. The vast majority of courses in the master’s programme are available in one or more of the packages, but a few are included in all packages. The course packages are not binding. This means that even if students have selected a particular course package, they are still free to change direction or combine several packages. As such, students are free to register for courses from other packages than their chosen one, on condition that they do so within the registration period.

Students, who fail to register for 30 ECTS per semester, will be enrolled for courses in their selected package by the study administration (see section 4.3).

The following course packages are available in the Master’s Programme in Economics:

1. Finance
2. Macroeconomics
3. Applied Microeconomics and Public Policy
4. International Economics, Trade and Development
5. Business and Corporate Governance
6. Research Track

Re 1) Finance

The target group for this package consists of students seeking careers in the financial sector. It includes a number of finance courses based on micro- and macroeconomic theories, and builds on the methodology courses within the field of financial econometrics and macroeconometrics.

Re 2) Macroeconomics

The Macroeconomics package allows students to specialise as macroeconomists in a broad sense. It draws on macro-theoretical courses, financial courses with a focus on macro aspects, and courses in the field of
public and political economics. In terms of empirical methodology, the package draws on macroeconomics, among others the course ‘Advanced Macroeconometrics’.

Re 3) Applied Microeconomics and Public Policy

This course package focuses on the description of economic behaviour, using theory and empirical methodology based on a microeconomic approach – among these experimental methodology and advanced microeconometrics. The courses in this package cover a number of academic areas with a microeconomic foundation, e.g. industrial economics, labour economics, health economics, political economics, behavioural economics, demography and welfare economics, and also other related fields.

Re 4) International Economics, Trade and Development

This package draws on a wide range of internationally oriented economic courses, including international trade, international monetary conditions, and development economics. Theory courses are combined with empirical methodology from both advanced microeconometrics and advanced macroeconometrics.

Re 5) Business and Corporate Governance

This package draws on a wide range of courses in business economics offered at the economics programme, as well as courses in the field of industrial economics. The courses in this package also draw on the business economic courses in the finance package, industrial economics, and also business courses in fields such as health economy. Among other things, the selection of courses in this package draws on the empirical methodology from advanced microeconometrics and advanced macroeconometrics.

Re. 6) Research Track

This package targets students who are thinking about taking a PhD, or students who wish to take a wide-ranging combination of courses at a high academic level. The package is centred on the advanced courses in micro and macro theory, as well as advanced econometrics.

All six course packages may be combined with the courses ‘Economic History’ and ‘History of Economic Thought’, as well as courses in statistics, programming and advanced mathematics.

The majority of courses and all of the seminars are included in one of the course packages (see section 6 to find out in which packages the courses are included).
4.2 Registration Requirement of 30 ECTS per Semester

The University must ensure that all students are registered for 30 ECTS per semester, cf. the Common Part of the Curriculum.

The University enrolls students on ‘Micro III’ and ‘Macro III’ in their first semester, provided that the students have not previously passed elements corresponding to these courses.

However, students, who have been granted an exemption from the 30 ECTS registration requirement, are personally responsible for ensuring that they are registered for the correct courses and examinations.

Students are also personally responsible for registering for courses and examinations during the registration period.

Should any changes be made regarding which students the study administration register for courses, this will be communicated in the curriculum and advertised on the study pages at KUnet.

Students, who are responsible for their own course registration in accordance with the rules above, but students, who fail to register for the required 30 ECTS within registration period, will be registered by the university according to the following principles:

1. ‘Micro III’ and ‘Macro III’ (First semester) for students who have not already passed these courses
2. Primarily, available places on courses and seminars of their course packages (First, second and third semester), secondarily available places on courses and seminars in other course packages (First, second and third semester)
3. Thesis (Fourth semester)

Registration under the principles outlined above is binding and may only be changed in case of unusual circumstances.

4.3 Credits

For a course to be transferred to the Master’s Programme, it must deal with economic theory or methodology, econometrics or mathematics. If the course falls within the field of social sciences in the broadest sense, and/or is assessed to be relevant to the student’s individual programme, the university may approve the credit transfer as a non-constituent course (neighbouring course).

Students may transfer a maximum of 60 ECTS, of which a maximum of 30 ECTS may be neighbouring courses. No more than one seminar can be transferred. The Board of Studies may grant exemptions from these limits.

5 Exams
5.1 Assessment and Grading
The Examination Order (Eksamensbekendtgørelsen) stipulates that external examiners must evaluate at least one third of the ECTS of the master’s programme (i.e. 40 ECTS). This rule is satisfied by 100% external assessment of the thesis (30 ECTS) as well as the two compulsory courses in the first semester: ‘Micro III’ and ‘Macro III’. The vast majority of all elective courses offered at the Department of Economics are subject to 100% external assessment. Students who have already passed ‘Micro III’ and ‘Macro III’ during their bachelor’s programme (i.e. their admission qualifications) must take at least 10 ECTS elective courses subject to external assessment during their master’s programme.

Economic seminars are subject to random external assessment. Co-curricular written assignments corresponding to 5.5 ECTS or more are subject to external assessment. Details of the evaluation method of each course are described in section 6.1, and also in the Course Catalogue at www.kurser.ku.dk/.

The Examination Order (Eksamensbekendtgørelsen) stipulates that at least two thirds of the ECTS of the master’s programme (i.e. 80) must be assessed with grades. This requirement is satisfied, when the thesis (30 ECTS), ‘Micro III’ and ‘Macro III’ (15 ECTS), the seminars (15 ECTS), as well as at least another 20 ECTS are assessed with grades. Students who passed ‘Micro III’ and ‘Macro III’ during their bachelor’s programme must take at least 35 ECTS graded elective courses.

The majority of courses offered by the Department of Economics are graded according to the 7-point grading scale. However, a small number of courses are assessed with Pass/Fail. When this is the case, it is noted in the course description.

5.2 Exam Language
If a course organiser teaches a course in a foreign language, the examination will be offered in this language. In some cases, students at the Master’s Programme in Economics will have the possibility to take the examination in Danish, even though the course is taught in English. Students will be notified of this possibility when registering for the examination. The exam language of all courses will appear on the master’s diploma.

Master’s students who wish to document that they have completed the English-language version of the Master’s Programme in Economics must have completed all of their examinations in English.

6 Course Catalogue

6.1 Outline of Programme Elements:
The table below lists the programme elements by name, number of ECTS, and prerequisite requirements.

e/f/s indicates the semester in which the courses are usually offered (e = autumn, f = spring, s = summer), based on the initial letters of the Danish words. (F) indicates that the course is part of the finance line.
## Compulsory Courses:

<table>
<thead>
<tr>
<th>Course Name</th>
<th>ECTS Credits</th>
<th>Prerequisite Requirements*</th>
<th>Examination</th>
<th>Assessment</th>
<th>External Assessment</th>
<th>Re-sit Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>e/f Micro III</td>
<td>7.5</td>
<td>Yes</td>
<td>2-hour closed-books written examination</td>
<td>Grade</td>
<td>100 %</td>
<td>Same but possibly oral exam</td>
</tr>
<tr>
<td>e/f Macro III</td>
<td>7.5</td>
<td>Yes</td>
<td>3-hour closed books written examination</td>
<td>Grade</td>
<td>100 %</td>
<td>Same but possibly oral exam</td>
</tr>
</tbody>
</table>

## Economics Elective Courses:

<table>
<thead>
<tr>
<th>Name of elective course</th>
<th>ECTS credits</th>
<th>Prerequisite requirements*</th>
<th>Examination</th>
<th>Assessment</th>
<th>External assessment</th>
<th>Re-sit Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>f Advanced Development Economics (Micro Aspects)</td>
<td>7.5</td>
<td>No</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 %</td>
<td>Same but possibly oral exam</td>
</tr>
<tr>
<td>e Advanced Development Economics (Macro Aspects)</td>
<td>7.5</td>
<td>No</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 %</td>
<td>Same but possibly oral exam</td>
</tr>
<tr>
<td>e Advanced Development Economics: Applied Macroeconomic and Policy Analysis</td>
<td>7.5</td>
<td>No</td>
<td>48-hour open-books take-home exam</td>
<td>Grade</td>
<td>100 %</td>
<td>Same but possibly oral exam</td>
</tr>
<tr>
<td>f Advanced Industrial Organisation</td>
<td>7.5</td>
<td>No</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 %</td>
<td>Same but possibly oral exam</td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
<td>Exam Format</td>
<td>Exam Details</td>
<td>Grade</td>
<td>Notes</td>
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<tr>
<td>e Advanced International Trade</td>
<td>7.5</td>
<td>No</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>e Advanced Macroeconometrics (F)</td>
<td>7.5</td>
<td>No</td>
<td>48-hour open-books take-home exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam with submission of take-home as synopsis</td>
<td></td>
</tr>
<tr>
<td>e Advanced Macroeconomics</td>
<td>7.5</td>
<td>Yes</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>e Advanced Microeconometrics</td>
<td>7.5</td>
<td>No</td>
<td>25-minute oral exam without preparation, without study aids</td>
<td>Grade</td>
<td>100 % Same, i.e. oral exam</td>
<td></td>
</tr>
<tr>
<td>f Advanced Strategic Management</td>
<td>7.5</td>
<td>No</td>
<td>Project with oral exam</td>
<td>Grade</td>
<td>100 % Same</td>
<td></td>
</tr>
<tr>
<td>e Anvendte generelle ligevaegtsmodeller (in Danish only)</td>
<td>7.5/12. 5</td>
<td>Yes</td>
<td>Oral with preparation and open books/oral without preparation, with submission of master’s assignment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s Behavioural and Experimental Economics</td>
<td>7.5</td>
<td>Yes</td>
<td>2-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
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<tr>
<td>Course</td>
<td>Credits</td>
<td>Exam Format</td>
<td>Assessment Details</td>
<td>Grade</td>
<td>Comment</td>
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<tr>
<td>e Behavioural Economics and Finance (F)</td>
<td>7.5</td>
<td>Yes</td>
<td>2-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>e Behavioral Finance (F) (tidl. Behavioral Economics and Finance)</td>
<td>7.5</td>
<td>Yes</td>
<td>2-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>e Contract Theory</td>
<td>7.5</td>
<td>Yes</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>e Corporate Finance and Incentives (F)</td>
<td>7.5</td>
<td>Yes</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>20 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>e Corporate Finance Theory (F)</td>
<td>7.5</td>
<td>No</td>
<td>Two take-home assignments (continuous assessment)</td>
<td>Pass/Fail</td>
<td>No Take-home exam or oral</td>
<td></td>
</tr>
<tr>
<td>e/f/s Datamatik I (in Danish only)</td>
<td>7.5</td>
<td>No</td>
<td>4–5 compulsory assignments and individual assignment tests; in addition, option of conversations with lecturer</td>
<td>Pass/Fail</td>
<td>No Submission of assignments</td>
<td></td>
</tr>
<tr>
<td>e Demography</td>
<td>7.5</td>
<td>Yes</td>
<td>Project</td>
<td>Grade</td>
<td>20 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>f Development Economics</td>
<td>7.5</td>
<td>No</td>
<td>3-hour closed-books written exam</td>
<td>Grade</td>
<td>20 % Same but possibly oral exam</td>
<td></td>
</tr>
<tr>
<td>Course</td>
<td>Credits</td>
<td>Exam Details</td>
<td>Grade</td>
<td>Course Details</td>
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<tr>
<td>e/f Dynamiske modeller (in Danish only)</td>
<td>7.5</td>
<td>Yes, 3-hour written exam with certain study aids</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f Economic Growth (F)</td>
<td>7.5</td>
<td>Yes, 3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f Economic Sociology</td>
<td>7.5</td>
<td>No, 24-hour open-books take-home exam</td>
<td>Grade</td>
<td>20 % Same but possibly oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f Economics of Banking (F)</td>
<td>7.5</td>
<td>No, 3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e Economics of Education</td>
<td>7.5</td>
<td>Yes, 3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e Economics of the EU</td>
<td>7.5</td>
<td>No, 3-hour closed-books written exam</td>
<td>Grade</td>
<td>20 % The same but option of oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f Economics of Exchange Rates (F) (former International Finance)</td>
<td>7,5</td>
<td>Yes, 3-hour closed-books written exam</td>
<td>Grade</td>
<td>100 % The same but option of oral exam</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f Economics of Welfare</td>
<td>10</td>
<td>No, 28-hour open-books take-home exam</td>
<td>Grade</td>
<td>100 % Same but possibly oral exam</td>
<td></td>
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<td>s Entrepreneurship</td>
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**Economics Seminars:**

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<th>Examinato $n$</th>
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<th>External assessm $ent$</th>
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**Co-Curricular Written Assignments:**

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**Thesis:**

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*Students must meet the prerequisite requirements before they are allowed to take the examination of the course, e.g. compulsory assignments, attendance, presentation or submission of a paper or a contract. The examination of some courses may be a project. In these cases it may a requirement that students submit a project description or similar before being eligible to write the project. This may not necessarily be mentioned above.*
### 6.2 Course Packages

Table of courses included in the various course packages:

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<tr>
<th>Course Packages</th>
<th>Finance</th>
<th>Macroeconomics</th>
<th>Applied Microeconomics and Public Policy</th>
<th>International Economics, Trade and Development</th>
<th>Business and Corporate Governance</th>
<th>Research Track</th>
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The following section contains course descriptions for the:

- thesis
- seminars
- co-curricular written assignments
- elective courses
6.3.1 Thesis

Number of ECTS: The thesis is equal to 30 ECTS.

Purpose and Learning Outcome: The thesis is the final major assignment. The learning outcome is to:

- formulate, outline and operationalize an economic and social-science problem in a wider sense. The thesis is produced on the basis of the courses and other educational activities (including those for which credits are transferred from other programmes), which comprise the Bachelor's and Master's Programmes in Economics.
- select, discuss and apply relevant economic theories and econometric approaches (at the level of the master’s programme) relevant to the specific analysis and any potential corresponding empirical material
- document and explain the conducted analysis, and account for its strengths and weaknesses
- provide a logical, clear and linguistically accurate presentation and clarification of the chosen problem

Students defend their theses orally. At the oral defence the students must demonstrate that they master the methods used in the composition of the thesis. Students must also be able to explain and clarify their problem.

Registration: Students must register for thesis these following the rules for thesis registration in the section 'Registering for a Master's Thesis' in the Common Part of the Curriculum.

Second and Third Exam Attempts: Students who fail to submit their theses by the stated deadline must register for a second exam attempt (and, if necessary, a third attempt) according to the rules described in the section 'Registration for the Second and Third Thesis Attempts on the Master’s Programme' of the Common Part of the Curriculum.

Guidelines and Contract: Students must find a supervisor among one of the full-time lecturers at the Department of Economics, or among one of the part-time lecturers affiliated with the department. In unusual circumstances, students may apply to the Board of Studies for an external supervisor employed at another Danish university. The exemption will be granted on condition that none of the supervisors at the department are capable of supervising the students.

Internal supervisors (including part-time lecturers) are allocated 21 hours for supervision and preparation, excluding the assessment. External supervisors are allocated 15 hours, including assessment.

The university (i.e. the Head of Studies) approves the topic of the thesis. The contract template is available on the study pages at KUnet.

The thesis contract must include a project description containing proper information about the topic, methodology and content of the thesis, as well as a timetable.
If students want the thesis to be a part of the MSc in Economics (Finance), this must be specified in the thesis contract.

Students, who write their theses in collaboration with a company and make use of company data, should draw up a third-party agreement clarifying how the students may use the data, and whether the thesis should be confidential. A template third-party agreement is available on the study pages at KUnet under ‘Master’s Thesis’.

**Submission:** Two weeks prior to the deadline, the student must submit a two to three pages preliminary summary to the study administration. The preliminary summary is used to appoint an external examiner.

Students must submit their theses to the thesis administration no later than their deadline. Theses must be submitted online as well as in two bound copies.

**Type of Examination and Other Regulations:** The thesis is a project with a subsequent oral defence.

Theses may be written individually or by two students in collaboration. If written by one student, the thesis must be no longer than 80 standard pages. If written by two students, the limit is 160 pages.

A standard page is defined as 2,400 keystrokes including spaces. The number of pages is based on this definition. The number of standard pages and the number of keystrokes must appear on the front page of the thesis. The number of keystrokes including spaces is calculated on the basis of all text in the main body of the written presentation, i.e. including footnotes, endnotes, and tables.

The following are not included: the cover page, table of contents, summary, bibliography, figures, graphs, etc.

See section 5.4 of the Common Part of the Curriculum for a more detailed description of the standard page definition.

The summary is included in the assessment of the thesis. The summary should summarise the main points of the thesis and stipulate how the student arrived at these points. The summary must be written in another language than Danish, even if the thesis is not in Danish. The summary may be in English, German or French. Swedish and Norwegian do not count as foreign languages, cf. the Examination Order (Eksamensbekendtgørelsen).

Precise details concerning the formal requirements are found in the Common Part of the Curriculum and on the study pages at KUnet.

The thesis is assessed externally, according to the 7-point grading scale.

Writing and spelling skills are part of the overall assessment of the thesis. However, the academic content will be weighed more heavily, cf. the Examination Order (Eksamensbekendtgørelsen).

If two students co-write their thesis, it must be clearly stated which student wrote which part, enabling their contributions to be assessed individually. The foreword/introduction and table of contents should clearly identify with which parts each author contributed. The introduction and conclusion, as well as any
potential sub-conclusions, may be written collectively. Please note that no more than 20 % of the thesis may be co-written.

Students co-writing their thesis defend it individually, and the authors may not be present at the co-author’s oral defence.

If the thesis is not submitted in time, it will not be assessed. In such cases, the student will have used their first exam attempt, cf. the Examination Order (Eksamensbekendtgørelsen).

**Re-sit Examination:** Same as the ordinary exam, but with less time allotted to finish the thesis (see above).

**Language:** Danish or English
6.3.2 Seminars

Purpose: The purpose of seminars on the Master’s Programme in Economics is for students to identify and clarify a problem employing the theories and methodology acquired during their Bachelor and Master’s Programmes in Economics. The students make an agreement with the lecturer of the seminar concerning the topic of their individual seminar assignment. Participation in an economic seminar involves preparation of a written presentation, constructive discussion of other students’ presentations, and active participation. In the assessment of an economic seminar assignment the clarity and linguistic accuracy is takes precedence.

Description of Objectives: The purpose of participation in an economic seminar is for students to demonstrate their mastery of the following:

- Formulating, delineating and operationalizing an economic and social science problem in a wider sense. The written presentation is produced on the basis of courses and other educational activities (including those for which credits are transferred from other programmes), which comprise the Bachelor and Master’s Programmes in Economics
- Selecting, discussing and applying the relevant economic theories and econometric approaches (at the level of the master’s programme) relevant to the specific analysis and any potential corresponding empirical material
- Documenting and explaining the conducted analysis, and accounting for its strengths and weaknesses
- Providing a logical, clear and linguistically accurate presentation and clarification of the chosen problem
- Delivering their own presentations in a clear and linguistically accurate manner
- Conducting a constructive oral discussion of other students’ presentations, and participating actively in the classes of the seminar

The grade 12 is awarded when students complete an economics seminar with no or only a few minor deficiencies.

Type of instruction: During the economic seminars the participating students prepare a paper about a previously agreed topic and present it to their fellow students and the lecturer. The participating students take turns in the role of opponents of other students’ presentations.

Recommended Requirements: It is recommended, but not compulsory, that the students participate in the corresponding course, if such a course is available, before taking the seminar.

Language: Danish or English. Where the seminar language is English, ALL students must write their assignment in English, even if no English-speaking students are participating.

Formal Requirements: As a requirement for the examination (i.e. the written exercise and presentation), students must:
a) attend the agreement meeting at the beginning of the seminar

b) attend the classes of the seminar. By prior arrangement with the lecturer, students may miss up to two classes, but only if the presentations are distributed over the entire semester, rather than, e.g. over two days

c) submit their commitment paper

d) deliver their own presentation

e) oppose other students’ presentations

For economics seminars in the master’s programme, the written presentation must consist of a maximum of:

- 8–12 pages of text (including introduction, conclusion, and figures)
- a one-page foreword
- a one-page table of contents
- a two-pages list of references
- eight pages of appendices

All other formal requirements are described in the Common Part of the Curriculum.

Seminars may be co-written by two students. If a seminar is written by more than one student, the foreword must clearly state the contribution of each author, enabling each student’s contribution to be subject to individual assessment. The required number of pages increases depending on the number of students co-writing the seminar. The number of pages is described below:

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<tr>
<th>Students</th>
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<th>List of references</th>
<th>Preface</th>
<th>Appendices</th>
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If two students co-write an assignment, it must be clearly stated which student wrote which part, enabling their contributions to be individually assessed. The foreword/introduction and table of contents should clearly identify, with which parts each author contributed. The introduction and conclusion, as well as any potential sub-conclusions, may be written collectively. Please note that no more than 20 % of the assignment may be co-written.
Type of Examination:

The grade for participation in a seminar is awarded solely on the basis of the written presentation.

20% of the seminars are subject to 100% external assessment.

Re-sit Examination:

Submission of the written presentation (or a new presentation, if the written presentation was previously assessed), followed by an oral exam in which students may also be examined in the presentations of the other students participating in the seminar during the enrolment period in question. The grade is awarded based on the written presentation as well as the oral examination.

Students may take the re-sit examination even if they have failed to satisfy the compulsory requirements for the ordinary examination. This also applies to their third exam attempt.

If a student fails the ordinary exam as well as the re-sit examination, and if the University are unable guarantee that the same seminar will be offered again, the student will be registered for the same examination in the following semester. In that case, the type of examination will be the same as rules concerning re-sit examinations above.
6.3.3 Co-curricular Written Assignments

**ECTS:** 0.5–7.5 ECTS

**Purpose and Description of Objectives:** Co-curricular written assignments (formerly known as supplementary papers) are available for students who want to enhance their knowledge and competences in a particular course.

Students are allowed to write a maximum of two assignments of this kind during their bachelor’s programme.

The rules for deadlines are listed on the study pages at KUnet.

**Placement in the Master’s Curriculum:** A co-curricular assignment substitutes ECTS in the group of elective courses in economics.

**Registration, Submission and Supervision:** Students register by submitting a registration form to the study administration (available on the study pages at KUnet). The form has to be submitted by the supervisor no later than the final day of the registration period for the next semester. For this reason it the study administration strongly advise students to start finding their supervisors and making arrangements well in advance.

Assignments prescribed to up to 5 ECTS must be submitted no later than 1 November (Autumn semesters) / 1 April (Spring Semesters). Assignments prescribed to 5.5 ECTS or more must be submitted no later than 1 January (Autumn semesters) / 1 June (Spring Semesters).

Students should enter into supervision agreements with one of the full-time lecturers at the Department of Economics or an affiliated part-time lecturer. No actual supervision is provided for co-curricular written assignments, but the supervisor is expected to assist with literature suggestions and the structuring of the assignment.

Students can only have an external supervisor when writing their co-curricular written assignments in unusual circumstances. Applications for an external supervisor must be submitted to the study administration and should include the reasons why the student is unable to use an internal supervisor.

**Type of Examination:**
The supervisor assesses assignments prescribed to up to 5 ECTS with a Pass/Fail grade. Assignments prescribed to 5.5 ECTS or more are assessed externally and graded according to the 7-point grading scale.

The length of co-curricular written assignments depends on the prescribed number of ECTS. The requirements for the number of pages for co-curricular written assignments are as follows:

- 0–5 ECTS = 1–1.5 standard pages
• 1 ECTS = 2–3 standard pages
• 2.5 ECTS = 5–7.5 standard pages
• 5 ECTS = 10–15 standard pages
• 7.5 ECTS = 20–25 standard pages

If the assignment is prescribed to another number of ECTS than those listed above, the page number is calculated based on the number of pages for a 1 ECTS assignment. For assignments written by more than one student, the number of pages is multiplied by the number of authors, i.e. x2, x3, etc.

The number of pages includes tables and graphs.
In addition to the number of pages listed above, the students may include the number of pages below in their assignment:
• One cover page
• One page for the table of contents
• Two pages of literature citations
• A maximum of five pages of various appendices. If necessary, a SAS file may be attached to the dataset used, if previously arranged with the supervisor.

The assignment may be written by up to two students.

If two students co-write the assignment, they must do so in a way that their individual contributions can be individually assessed. The foreword/introduction and table of contents must all clearly identify with which parts each author contributed. The introduction and conclusion, as well as any sub-conclusions and/or summaries, may be written collectively. However, no more than 20 % of the assignment may be co-written.

For assignments written by two students, the number of pages is doubled. In addition to the number of pages, the number of pages below may included in the assignment:
• One cover page
• One page for the table of contents
• Four pages of literature references
• A maximum of ten pages of various appendices. If necessary, a SAS file with the dataset used may be attached to the assignment, if previously arranged with the supervisor.

Re-sit Examination:
Same as for ordinary examination, i.e. the student must register for and re-submit the assignment.
6.4  **Mandatory courses** (All courses can be found at www.kurser.ku.dk)

6.4.1.1  **Macro III (former Macro C)**

**Content:** The aim of the course is to provide insight into the basic models, concepts, methods and results of modern macroeconomics and to be a prerequisite for the more specialized macroeconomic courses (Advanced Macroeconomics, Economic Growth, Monetary Economics: Macro Aspects, Development Economics: Macro Aspects, and International Monetary Economics). Among other things the course will focus on

- What determines savings and capital accumulation in a general equilibrium framework. • How will taxes and public debt affect the economy?
- What are the effects of uncertainty and expectations?
- Why is money valued and how it affects capital accumulation?
- How is stabilization policy affected by the way expectations are formed?
- The political limits to monetary policy.

**Learning Outcome:** At the end of the course, the student should be able to demonstrate:

Understanding of the main model frameworks for long-run macroeconomics. This includes the Diamond model with overlapping generations in discrete time and the Ramsey model in continuous time.

Proficiency in the application of the concepts and methods from these frameworks, including competence in dynamic optimization and dynamic analysis in discrete and continuous time.

Understanding of the role of expectations and basic knowledge of macroeconomic models with forward looking expectations under both perfect foresight and uncertainty and rational expectations. Time consistent and credibility issues regarding monetary and fiscal policy as well as institutional solutions.

Proficiency in the application of the related concepts and methods.

Competence in analyzing a macroeconomic problem, where the above-mentioned concepts and methods are central, that is competence in solving such models and explaining in economic terms the results and implications and how they derive from the assumptions of the model.

The particularly good performance, corresponding to the top mark, is characterized by a complete fulfillment of these learning objectives.

**Teaching and learning methods:** Lecturing and exercises.
**Academic qualifications:** The course requires knowledge equivalent to that achieved in Macroeconomics A, Macroeconomics B (from E15 named Macroeconomics I and Macroeconomics II), Econometrics A and B ((from E15 named as "Sandsynlighedsteori og statistik/Probability theory and statistics" and Økonometri II/Econometrics II).

**Formal requirements:** As a part of the course, three written assignments should be completed and accepted.

### 6.4.1.2 Micro III (former Micro C)

**Content:** To obtain a top mark in the course students must prove their ability to set up, prove, analyze and apply the theories and methods used in the course in an excellent manner. More specifically, the students should know the theory and be able to work with both normal and extensive form games. They should know, understand and be able to apply the concepts of dominant strategies, iterative elimination of dominant strategies, as well as mixed strategies.

The students should know the central equilibrium concepts in non-cooperative game theory, such as Nash equilibrium, subgame-perfect Nash equilibrium, Bayesian Nash equilibrium, and perfect Bayesian equilibrium. They should understand why these concepts are central, when they are used, and how they are related. They should be able to apply the relevant equilibrium and solution concepts. Furthermore, the students should acquire knowledge about a number of special games and particular issues associated with them, such as repeated games (including infinitely repeated games), auctions and signaling games. The students should also understand and be able to apply the solution concepts of cooperative game theory, such as the core. Furthermore, the students should also learn the basics of bargaining theory. To obtain a top mark in the course the student must be able to excel in all of the areas listed above.

**Learning Outcome:** This course furthers the introduction of game theory, non-cooperative as well as cooperative, and its applications in economic models. The student who successfully completes the course will learn the basics of game theory and will be enabled to work further with advanced game theory. The student will also learn how economic problems involving strategic situations can be modeled using game theory, as well as how these models are solved. The course intention is that the student becomes able to work with modern economic theory, for instance within the areas of industrial organization, macroeconomics, international economics, labor economics, public economics, political economics and financial economics.

In the process of the course the student will learn about
- Static games with complete information,
- Static games with incomplete information,
- Dynamic games with complete information,
- Dynamic games with incomplete information,
- Basic cooperative game theory.
The first part of the course is devoted to static games with complete information. This part of the course extends the initial treatment of the subject from Microeconomics B (Mikroøkonomi B). The concept of a normal form game and solution concepts such as dominance and Nash Equilibrium are reintroduced in a formally rigorous way. Students will also study a variety of economic applications of the theory. Finally, they will look more deeply into the theory of static games with complete information by studying mixed strategies and mixed-strategy Nash equilibria, and discussing equilibrium existence.

The second part of the course extends the treatment of dynamic games with complete information. The students will learn this theory in a more rigorous way and discuss various economic applications. The students will then study games with imperfect information and repeated games. They will be introduced to extensive form games, and will learn about the relevant refinement of the Nash equilibrium concept: subgame-perfect Nash equilibrium. Again, the theory will be illustrated by economic applications.

In the third part of the course the students will study simultaneous games of incomplete information. They will learn about the concept of Bayesian Nash equilibrium and apply their knowledge to different kinds of auctions, mechanism design problems, and other applications.

The fourth part of the course is devoted to dynamic games of incomplete information. The students will analyze the implications of introducing sequential moves into the games with incomplete information. They will gain knowledge of the Perfect Bayesian Equilibrium and its refinements, and will apply the theory to signaling games and other relevant economic problems. In particular, they will look into the job-market signaling model of Spence and other asymmetric information models.

Finally, the course will address cooperative games. The students will learn the basics of bargaining theory and cooperative game theory.

**Teaching and learning methods:** Forelæsninger og holdundervisning.

**Academic qualifications:** Mikro I og Mikro II

**Formal requirements:** As a part of the course, three written assignments should be completed and accepted.
6.5 Elective courses (All courses can be found at www.kurser.ku.dk)

6.5.1.1 AØKA08088U Advanced Development Economics (Micro Aspects)

Learning Outcome: This course will cover the microeconomics of development, and will focus on approaches to understanding the behavior of households and firms, and the functioning of markets and institutions in developing countries. Since development is a field with a strong empirical tradition, most of the course will be centered around discussing and evaluating the empirical strategies used in the literature.

Key topics in micro development will be covered including:
(i) Household economics and intra household allocation, (ii) Health and nutrition (iii) Human capital and education (iv) Land markets and property rights (v) Savings and credit (vi) Risk and insurance (vii) Social networks and learning (viii) Institutions and corruption (ix) Constraints to doing business (x) Firm-level productivity dispersion (xi) Technology adoption and spillovers (xii) Economic transition issues such as privatization (xiii) Project and program evaluation.

Content: The academic aims is:

1. To provide the students a critical overview of the recent literature and important debates within the micro aspects of economic development.
2. To provide insight into methodological issues that arise when doing research on microeconomics of development. The emphasis will be on (i) How theoretical microeconomic hypothesis may be tested with data and (ii) how to identify causal relationships. Therefore, one aim is to gain some insight into what makes a good empirical study.
3. To provide students with a “hands-on” experience on how to replicate empirical results using relevant econometric software. This will hopefully prepare students for original independent empirical research and help identify possible interesting thesis topics.

By the end of the course the students should be able to:

- Explain the main concepts and issues relevant to microeconomic problems of less developed countries.
- Understand and solve presented theoretical models and be able to present the models’ empirical prediction.
- Be able to present empirical results in a precise and consistent manor, as well as demonstrate a thorough understanding of the identification problems faced when carrying out empirical work.

Teaching and learning methods: Lectures

Academic qualifications: B.Sc. in Economics
Language: English

Formal requirements: None
Learning Outcome: The readings for the course is journal articles and recent working papers. Accordingly, the precise content of the course, in terms of required readings, will vary from time to time. But the course consistently covers three broad themes:

Theme 1. The Historical Origins of Comparative Development
It is increasingly understood that it is impossible to account for the vast income differences we see across countries without an understanding of the differential timing of the take-off to sustained growth, which occurred first some two hundred years ago in the Western world. This event is sometimes referred to as "the industrial revolution". As all countries did not venture onto a trajectory of sustained growth at the same time, income gaps emerged, thus shaping contemporary comparative development. This part of the course will therefore discuss the forces which has kept economies in a state of stagnation for the bulk of human history, and by extension, how economies ultimately are released from stagnation.

Theme 2. Fundamental Determinants of productivity
2A. Climate and Geography
2B. Institutions
2C. Culture

Why didn’t all countries take-off at the same time? Or, to put it differently, why did the "industrial revolution" not diffuse rapidly across the world as a whole? Why did some countries, post take-off, not manage to catch-up?
At the proximate level the answer to the latter question is suggested by existing growth models (such as the Solow-Swan model and extensions): some countries are simply not able to accumulate capital (physical and human), adopt new ideas, and ensure a high degree of macroeconomic efficiency as others. But why is that? If policy is part of the story, why do some countries apparently impose growth hampering policies? If low savings is part of an answer, why do citizens of some countries display more "thriftiness" than citizen's of other countries? Etc.
This part of the course discusses a recent body of literature, which seeks an answer in slow-moving country specific characteristics: Climate/Geography, Culture and Institutions. That is, differences in these three dimensions are critical in understanding both the differential timing of the take-off and the post take-off convergence process.
Our journey through the literature will also reveal important debates, which have played out (and, in many cases, are on-going) such as: does greater longevity lead to higher income? Does trade lead to growth? Are the formal rules of the game of an economy (i.e., things like property right protection) important to growth once we take into account that the informal rules of the game differ across countries (i.e., norms, values and tastes; things like trust, cultural valuation of skills and wealth and so forth)?

Theme 3. Policy debates: Aid effectivess
A key development policy tool is foreign aid. But how effective has foreign aid been in fostering growth and development?
Content: Aims for this course is:

- To provide students with an understanding of the causes of global patterns of growth and development
- To allow students to understand structural features of less developed economies and relevant economic modelling.
- To give students an understanding of policies to promote growth and development.

By the end of the course the students should be able to:

- Have a broad appreciation of important papers in the literature relevant to macroeconomic problems of less developed countries.
- Apply their knowledge of econometrics to articles that conduct quantitative analysis in less developed countries.
- Solve theoretical models in the area, as well as be able to provide intuition for central mechanisms and assess the models’ empirical predictions
- Appreciate some of the key debates among economists and how they relate to contemporary policy issues
- Have the background training needed to function as a trained economist working on the problems of less developed countries in an international organization, business environment, government or non-governmental organization

Teaching and learning methods: Lectures

Academic qualifications: Macroeconomics and Econometrics equivalent to the B.Sc.

Language: English
6.6.1.2 AØKK08198U Advanced Development Economics: Applied Macroeconomic and Policy Analysis

Learning Outcome: This course considers a range of policy-relevant topics that applied economists may face in low and middle income countries. The course focuses on short- and medium-run macroeconomic management issues. Topics covered include basic national accounts analysis, exchange rate management, monetary policies, public sector financing and natural resource revenue management. Where feasible, the course will consider political economy issues and emerging global challenges.

The course complements the existing Masters-level development economics courses ("Micro aspects" and "Macro aspects"). It makes a bridge between specific microeconomic topics and the fundamental determinants of growth. Also, it addresses new topics such as (shorter-run) macroeconomic management and the design of economic policies. The course should be especially relevant for students that seek to work in areas such as emerging markets finance, international organizations, government ministries, or diplomatic missions etc.

Students are expected to be actively involved, particularly in discussion of concrete policy problems and case studies.

Topics that may be covered include: Defining characteristics of developing countries; Challenges of applied macroeconomics and policy making in low income countries; National accounts analysis and extensions; International parity conditions; “Impossible Trinity”; Exchange rate evaluation methods; Instruments, targets & goals of monetary and exchange rate policy (MERP); New Keynesian and other MERP models; Operational and Policy issues of MERP; Fiscal sustainability analysis; Natural resource management.

Content: The overall aim of the course is to provide students with core foundations to analyse and address applied macroeconomic and economic policy issues in low and middle income country contexts.

Having successfully taken this course, students should:

- Understand the particular challenges, both theoretical and practical, facing macroeconomists and economic policy-makers working in/on developing countries;
- Understand the functioning, strengths and weaknesses of key theoretical frameworks ("workhorse policy models") used by applied economists in developing countries;
- Be able to analyse national accounts and other macroeconomic indicators, thereby providing a coherent understanding of the structure of a given economy;
- Understand the relevance of and rationale for making choices between alternative economic goals;
- Be able to explain the principal monetary and exchange rate regime choices, trade-offs and management challenges facing for small open developing economies;
- Understand the theoretical and practical issues involved in the economic management of potentially volatile external flows, such as those surrounding natural resource extraction;
• Understand concepts and methods used for fiscal sustainability analysis; and
• Demonstrate knowledge of the empirical literature, including country cases studies, that shed light on the range of topics covered in the course.

Teaching and learning methods: Lectures

Academic qualifications: Bachelor degree in economics, preferably including an introductory development economics course.

Language: English
6.6.1.3 A0KA08082U Advanced Industrial Organization

Learning Outcome: This course advances on some topics from the undergraduate course on Industrial Organization. It covers selected problems in Theory of the Firm, Vertical Integration and Foreclosure, Horizontal Mergers, Dynamic Competition, Non-Equilibrium Theories of Dynamic Competition, Information and Limit Pricing, Network Externalities and Standardization, Research and Development, and International Trade and Industrial Organization.

Content: The aim is that the students get an advanced knowledge of modern theories of industrial organization and their application in understanding real world problems such as competition policy cases.

The students should acquire a level of knowledge, where they understand the details of the theories and are able to analyze problems within industrial organization using the acquired theoretical tools. It is the aim that the student learns how to model economic problems in markets with few firms, can be modelled using the appropriate (often game theoretic) methods as well as how these models are solved. The course furthermore covers a number of competition policy cases, and it is intended that the students should acquire knowledge so that they are able to analyze such cases using the acquired theoretical tools and basic knowledge about economics.

The course is to some extent based on journal articles and recent research papers. Part of the course is intended to reflect the research frontier and a few topics may therefore change from time to time.

Within the areas covered in the course, the aim is that students should be able to:

1. Solve formal models using tools from mathematical optimization theory and game theory.
2. Understand the theories at a level as found in research papers published in the major journals.
3. Analyze questions related to industrial organization drawing upon one or more theories and to present this analysis in writing using a scientific and concise language.
4. Analyze formal models that are variations of the models and theories covered in the course and to provide economic intuition for the results obtained.

Teaching and learning methods: Lectures

Academic qualifications: B.Sc. course in Industrial Organization or equivalent as well as basic game theory is recommended

Language: English

Formal requirements: None
6.6.1.4  AØKA08062U Advanced International Trade (former International Trade and Investment: Theory and Policy)

Learning Outcome: The course covers the following topics:

- Gains from Trade and the Law of Comparative Advantage
- the Heckscher-Ohlin model focusing on international differences in factor endowments
- the Ricardian model focusing on international differences in technology
- the Melitz model focusing on imperfect competition and firm heterogeneity
- Gravity models
- Trade costs
- Trade, offshoring and the structure of wages
- International migration

Content: The objective of this graduate-level course is to equip students with an in-depth understanding of the theory of international trade and enable them to read, understand and critically reflect on the most recent theoretical and empirical research in the field.

Compared to the undergraduate-level course International Economics, this course is more research-oriented, focusing on the most important research contributions to international trade in recent years.

At the end of the course, students are expected to be able to describe the above theories and apply relevant concepts from the course to analyze new problems and policy proposals:

- Law of comparative advantage
- Sources of comparative advantage: Factor endowments, technology, quality differentiation and firm heterogeneity
- Trade, offshoring and labour market implications
- International migration
- Trade cost

Teaching and learning methods: Lectures

Academic qualifications: Mandatory courses from B.Sc.

Language: English
Learning Outcome: The focus of this course is on likelihood based analysis of the cointegrated VAR model with an emphasis on applicability, particularly in the field of macroeconomics and international finance. Cointegration analysis is a means to uncover, estimate and test stationary relations among non-stationary variables. The reason why this is interesting is that such stationary relations often can be interpreted as equilibrium relations between economic variables. Within the cointegrated VAR model it is possible to investigate dynamic interaction and feed-back effects, in particular how deviations from a steady-state relation affect the economic system. Furthermore, it is also possible to make inference on the common driving trends which have generated the non-stationarity of the data. The reason why this is interesting is that these common trends can be interpreted in terms of unanticipated shocks to the variables of the system. In short the cointegrated VAR model allows us to investigate the economic reality as a system of pulling forces (the equilibrium correction forces) and the pushing forces (the common stochastic trends). The course includes the topics:

Content: The aim of this course is to provide the students with a profound theoretical and practical knowledge of the econometric analysis of non-stationary time-series using multivariate dynamic models. At the end of the course students should be able to perform cointegration analyses based on a given set of data and critically assess empirical analyses of macroeconomic time series.

The overall goal is that the students - after having completed the course - should be able to:
- Formulate a vector autoregressive (VAR) model for a given set of data and test whether it is a congruent representation of the information in the data.
- Formulate the hypotheses of unit roots and cointegration as restrictions on the VAR model. Test for the cointegration rank of the VAR model.
- Explain the role of constants, trend terms, and dummy variables in the cointegrated VAR model.
- Estimate the parameters of the cointegrated VAR model using maximum likelihood. Interpret the results in terms of equilibrium relationships and driving common trends.
- Formulate and test hypotheses on the cointegrating relationships and the equilibrium adjustments.
- Analyze whether the VAR model has constant parameters.
- Explain when a structure is exact-, under- or overidentified.
- Impose identifying restrictions on the long-run and short-run structure of the model.
- Impose identifying restrictions on the common trends of the model and perform a structural VAR analysis.
- Understand the basics of the cointegration model for variables integrated of order two and perform a nominal-to-real transformation.
- Apply the theory to perform and interpret an empirical cointegration analysis.

Teaching and learning methods: Lectures and classes
**Academic qualifications:** Students should know the principle of maximum likelihood estimation and understand the dynamic linear model corresponding to Quantitative Methods 3. In addition, a fairly good knowledge of macroeconomics at least corresponding to the basic course in macroeconomics is recommended.

**Language:** English
**6.6.1.6 AØKA08098U Advanced Macroeconomics**

**Learning Outcome:** Being graduate, the course builds upon the macroeconomics courses in the bachelor program and presupposes corresponding qualifications. The course extends models from these courses in different directions and introduces new models. The emphasis is on complete dynamic models, taking forward-looking expectations, uncertainty, and market imperfections in the goods, labour and credit markets into account in a systematic way.

Fiscal and monetary policy questions are analysed in the light of these models. For example, how can "fiscal sustainability" of a given set of government spending and taxation rules be assessed? What is the role of monetary and fiscal policy in business cycle stabilization under alternative circumstances, including a liquidity trap?

Specific topics in the course:

- The continuous-time overlapping-generations model, budget policy and general equilibrium effects of public debt
- Tobin's q and firms' investment decisions
- the housing market in macroeconomics
- speculative bubbles
- macroeconomics with imperfect competition, nominal and real price rigidities
- the consumption/saving decision under uncertainty, precautionary saving
- different approaches to business cycle theory
- credit and business cycles, with an application to the Great Recession 2008

**Content:** The aim of the course is to endow the student with:

1. understanding of the basic theoretical concepts, mathematical methods and models of modern macroeconomics;
2. ability to use these tools in providing precise answers to questions related to the functioning of the economy as a whole, both in the short run and in the longer run;
3. knowledge of the major empirical regularities in the behaviour of aggregate economic variables in the short run, medium run and long run;
4. ability to evaluate the models from a theoretical as well as empirical point of view.

A perfect score of 12 at the final exam is given if the student is able to demonstrate in a clear and indisputable way to have obtained accurate and thorough competence along these lines.
Through the course students will learn the modelling tools necessary for understanding economic evolution at the aggregate level, for making macroeconomic forecasts and for policy analysis. Skills along these dimensions are essential for being qualified to work in the economic research and forecast divisions of companies, organisations and government institutions.

**Teaching and learning methods:** Lectures and classes

**Academic qualifications:** It is a prerequisite to master macroeconomic models at a level corresponding to Romer: Advanced Macroeconomics, 2. ed., 2002 (chapters 1-2, 10-11), including knowledge of methods of intertemporal optimization (optimal control theory) and analyses of dynamic systems (difference and differential equations, phase diagrams etc.). The course is calculus intensive.

**Language:** English

**Formal requirements:** Midterm paper accepted is mandatory for access to the final exam.
Learning Outcome: The overall purpose of the course is to provide a fundamental understanding of microeconometric methods and their application. These methods consist of behavioral models and statistical techniques to estimate these models.

The course will cover the following methods of estimation:

- Linear panel data models (Chapter 10-11)
- Non-linear estimation methods (Chapter 12-14)
- Non-parametric estimation methods (Lecture notes)
- Discrete response models (Chapter 15-16)
- Corner solution models (Chapter 17)
- Censored data and sample selection models (Chapter 19)
- Treatment effects (Chapter 21)

The course consists of a series of lectures and exercise classes. The lectures focus on theory whereas the class provides a hand on knowledge of estimation of the models.

Content: Through their completion of the course, students should acquire the tools necessary to understand papers and undertake empirical analysis on microeconometric topics. The acquired skills in microeconometric theory and practice provide a strong background that enable students to do empirical analyses at a high level suitable for the master thesis, but also relevant for answering empirical economic questions that could be encountered in a government agency or in the private sector.

The purpose of the lectures and the exercise classes is that the student should

- acquire knowledge about estimation methods
- be able to review linear cross section and panel data models, and nonlinear models for discrete dependent variables, censored dependent variables and sample selection.
- be able to give an account of how these techniques are applied to quantify effects of public policies.
- be able to give an account of how such models are applied appropriately within different sampling schemes.

To obtain the maximum grade in the part of the course covered by lectures and exercises, students must excel in all of the areas listed above.
A parallel master’s seminar in microeconometrics will be set-up and students following the Advanced MicroEconometrics II course are encouraged to also taking this seminar. The purpose of the parallel seminar is to make students

- pose a focused economic research question (inspired, for example, by an already published paper
- find data that can be used to answer the question
- estimate relevant models and test hypotheses using methods discussed in the course.
- program the estimators applied in the paper using MATLAB
- investigate the properties of the estimators and tests using Monte Carlo techniques
- present the analysis in a short and focused term paper
- Disseminate the analysis and discuss empirical strategies at a workshop

Students who want to take both the course in Advanced Microeconometrics as well as the master’s seminar, need to sign up for both separately.

**Teaching and learning methods:** Lectures and classes

**Academic qualifications:** Pre-requisites are Econometrics A, B, and C

**Language:** English
6.6.1.8 AØKA08100U Advanced Strategic Management

Learning Outcome: The idea of the course is to provide the students with and understanding of how managers make decision and how strategy evolves under uncertainty in organizations located in a dynamic and complex environment. A further idea is to make the students aware of not only the economic but also the political, social, and psychological aspect of managing an organization and how these aspects affect the development of strategies in organizations both in the private and public sector.

In order to do so, the course will overall take a behavioralistic perspective on the organization. The implication of this perspective is that we will discuss the roles of the traditional strategy models, techniques, and approaches and look into how they are applied in different types of organizations and contexts.

The course start by outlining a theoretical framework based on Scott, Chaffee and Whittington’s classifications of the organizational and strategic literature. Then we look at some schools and definition of strategic management and the classical approach to strategic analysis and development is discussed. This is compared with how strategy in practices is developed and how they evolve over time.

Next we look at how difference forces shape organizations, strategies and strategic management. We will focus on the impact of a strong management vision, different organizational structures, new technologies, strategic alliances, globalisation, and corporate and societal values effects on organizations and on strategic management.

In the third section of the course our attention is on different types of organisations, their environment, strategies, management and strategy development processes. More specific we look at the small organization, the large fabrication and service companies, the professional organizations, the divisional firm, the innovative company and the company characterized by diversity.

During the classes students have to find and analyse a specific case company or a real organization which they can write a 3-5 page synopsis about. Here students have to relate and apply the curriculum text to the specific problems and situations of the chosen organizations. In the last part of the course there are time for presentation, discussion and feedback on the synopsis.

Content: The course provide the students with a competence in analysing the circumstances under which business strategies are developed and implemented as well as competences in organizing strategy development processes and decision-making in different types of organizations and environment. The course apply to student who see themselves in a job position as a management consultant, a secretary to the board of managers, and future managers who would like to work with business strategies in private and public organizations.

In order to acquire the mark 12 within the course Advanced Strategic Management the student must demonstrate:

- Knowledge about and understanding of relevant terms, concepts, processes and perspectives within the field of advanced strategic management.
• An ability to identify and discuss strategic issues within case organizations and industries by applying relevant terms, concepts, processes and perspectives from the course.

• An ability to discuss and evaluate the strength and weakness of the applied terms, concepts, processes from the course.

• An ability to talk about organisations and their environment within a clear and accurate language that make use of relevant terms and concepts from the field of advanced strategic management.

**Teaching and learning methods:** Lectures. The teaching is a combination of dialog lectures, small group work during classes including both discussions and presentations, and student presentations. It is a precondition that students have read the texts and cases before each class and that they are willing to present texts and cases to the rest of the class.

**Academic qualifications:** Knowledge to general Strategic Management

**Language:** English

**Formal requirements:** None
**Learning outcome:** Anvendte generelle ligevægtsmodeller er et af de konkrete redskaber som økonomer har i deres værkøjskasse.


Fagets ene formål er at give en oversigt over anvendelser af AGL-modeller til sådanne analyser. Fagets andet formål er af praktisk karakter, idet de studerende sættes i stand til selv at konstruere mindre generelle ligevægtsmodeller med anvendelse af GAMS-software. Endvidere gennemføres mindre AGL-analyser på egen hånd.

**Content:** Målet for undervisningen i faget Anvendte Generelle Ligevægtsmodeller er, at den studerende kan

- forklare Learning Outcome af de vigtige begreber i faget, eksempelvis generel ligevægt, kalibrering, følsomhedsanalyser, Armington-tilgang og finanspolitisisk holdbarhed
- sammenfatte de vigtige elementer i fremgangsmåden, når man opbygger en AGL-model
- kritisk vurdere de centrale forudsætninger i typiske AGL-modeller
- forklare opbygningen af de AGL-modeller der berøres i pensum, deres resultater, hovedårsagerne til disse og konkrete eksempler på modellernes anvendelse i policy-sammenhæng
- redegøre for og sammenligne styrker og svagheder ved de forskellige modeller og modeltyper, der berøres i pensum
- ræsonnere, hvordan den generelle ligevægt medfører afledte virkninger af udefrakommende stød i makroøkonomiske modeller, så direkte effekter af stødet ét eller få steder i modellen får konsekvenser generelt i økonomien, fx på faktor- og varepriser, investerings- og arbejdsudbudsafløbet, finansielle markeder, opsparing, forsyningsbalance og feedback-effekter fra udland og den offentlige sektor selvstændigt programmere en enkel AGL-model i programmeringssproget GAMS og redegøre for modellens resultater

For at opnå den højeste karakter i faget, skal den studerende udmærke sig indenfor alle punkterne.

**Teaching and learning methods:** Forelæsninger og holdundervisning

**Academic qualifications:** Mikro- og makroøkonomi svarende til 2. og 3. årsprøve på bacheloruddannelsen. Endvidere er det en fordel at have lyst til at arbejde med programmering.
**Language:** Dansk

**Formal requirements:**

Version 1: 7,5 ECTS. Fire obligatoriske opgaver skal løses tilfredsstillende og inden tidsfristen for at man kan gå til eksamen.

Version 2: 12,5 ECTS. Tre obligatoriske opgaver skal løses tilfredsstillende og inden for tidsfristen for at man kan gå til eksamen.
Learning Outcome: Behavioral economics attempts to make economics a more relevant and powerful science of human behavior by integrating insights from psychology and the social sciences into economics. Experimental economics adapts methods developed in the natural sciences to study economic behavior. Experiments are valuable in testing to what extent the integration of insights from other disciplines into economics is necessary and fruitful. Behavioral and Experimental Economics is a vibrant field of research in economics and sheds new light on many old and important issues in economics. The field has received wide recognition in recent years, for example by the award of the Nobel Prize in Economics 2002 to Daniel Kahneman and Vernon Smith. The field is rapidly growing. This course can therefore not provide a comprehensive overview but concentrates on selected topics instead.

The course addresses the following questions: What are the advantages and limitations of experimental economics? How important are deviations from the assumptions of full rationality and strict self-interest in determining outcomes of economic interaction? It is argued that identifying individual-level “anomalies” is not sufficient to demonstrate their economic and social importance. Instead, it must be analyzed how institutions mitigate and multiply these anomalies. A broad range of institutions, including markets, bargaining and voting is discussed.

Successful completion of this course earns students 7.5 ECTS credits.

Content: Students learn how the toolbox of experimental economics can be used in research, and learn to be critical consumers of the rapidly growing behavioral and experimental economics literature. More generally, the course contributes to a deeper understanding of the basic principles of rationality and self-interest in economics. - Students learn in what ways people systematically deviate from rational and self-interested behavior in individual decision making. This knowledge contributes to avoid pitfalls in decision-making. - Students learn in what ways markets and other forms of economic interaction can multiply or mitigate these errors. This knowledge is most relevant in the context of institutional choice or design (e.g. from an economic policy perspective). - Students participate in a series of demonstration experiments and therefore learn how experiments work in practice from the participants’ perspective. - Students write a series of short papers to analyze experimental data and to reflect on the data and the experimental design. Students therefore improve their writing and reasoning skills.

Teaching and learning methods: The course has three elements. - Demonstration experiments. Students participate in demonstration experiments in our experimental laboratory. - Assignments: Students analyze the data from the demonstration experiment (i.e. their own behavior) and reflect on possible explanations for observed behavior. Detailed knowledge of the literature is not required at this stage. Assignments are group work (groups of 2 or 3). Assignments are graded as “pass” or “fail”. A student needs to earn 1 “pass” on assignments and is free to choose among the assignments. Deadlines are strict (see handout). - Lectures: I discuss selected examples of research in behavioral and experimental economics. I explain the relevance of demonstration experiments and how the data compares to findings in the literature.

Academic qualifications: A sound knowledge of microeconomics and game theory at an intermediate level is required (e.g. Varian: Intermediate Microeconomics, Gibbons: A Primer in Game Theory).
**Language:** English

**Formal requirements:** Participation in experiments and analysis of experimental data is required for admission to final exam. a) Participating in all demonstration experiments is an essential element of this course. However, students are not expected to prepare these experiments. Students earn a “pass” if they are present (see schedule), are attentive and make “reasonable” choices during the experiment. b) Students must provide a rough analysis after each experimental session and answer specific questions concerning the experiment in a paper (“assignment”). Knowledge of the literature is not expected at this stage (we will talk about the experiments in the lecture). Maximum length of a paper: 4 pages text (not counting graphs, tables, see separate guidelines for more details). Students work in groups. Papers are graded as "pass" or "fail" and 1 "pass" paper are required for admission to the final exam.
Learning Outcome: Traditional economic theory assumes that economic agents are fully rational with unlimited cognitive abilities and willpower. However, individuals frequently and systematically make decisions in contradiction with these standard presumptions. Against the background of this finding the course addresses e.g. the following questions:

What are the shortcomings of traditional theories in economics and finance?
How do the new concepts / theories in behavioral finance and behavioral economics address these shortcomings?
How do these new theories relate to the traditional theories and what are their strengths and limitations?
How do the new behavioral presumptions in behavioral finance and economics change the predictions of classical economic theories?

With regard to the organization of the course: In the first week of the course there will be an opening lecture during which also all organizational issues are discussed. In all the following weeks there will be 2-hour lectures on different topics in behavioral finance and economics. Furthermore, there will be two assignments during the course. First, students should write a little paper either alone or together with a maximum of 3 other students which relates to one of the topics discussed in class. This means, students are free to choose an argument, but it should relate to one of the various topics discussed in class. Second, there will be an assignment with exercises which has to be handed in the second part of the course.

Content:

Content Level: The course in Behavioral Finance and Economics aims at introducing students to the field of behavioral finance and economics. Traditional economic theory assumes that economic agents are fully rational with unlimited cognitive abilities and willpower. However, individuals frequently and systematically make decisions in contradiction with these standard presumptions. During this course students should understand how behavioral finance and economics attempts to understand these systematic behavioral departures from standard economic theories. Furthermore, it should (i) provide an in-depth overview of the most important seminal works in these two areas and (ii) make students aware of the impact and relevance of the new concepts and theories presented in these seminal works.

Methodological level: Students should learn to critically assess and relate the new concepts and the supporting empirical evidence put forward in the hitherto existing seminal works in behavioral finance and behavioral economics. Furthermore, they should learn how to present these new and often complex concepts in a simple / clear, but not superficial way.

Teaching and learning methods: Lectures

Academic qualifications: A sound knowledge of microeconomics and game theory is required.

Language: English

Formal requirements: A number of exercises must approved in order to sit the exam, please see the course description at www.kurser.ku.dk.
Learning Outcome: The course provides an introduction to contract theory. Contract theory examines the characteristics of optimal contracts when one party has certain relevant knowledge that the other party does not have.

The course consists of two parts. In the first part, some of the basic ideas in contract theory are presented. We will, in particular, look at optimal contracts when one party has hidden information (adverse selection) or can take a hidden action (moral hazard). In the second part of the course we apply the insights obtained to a number of specific economic questions, studying some original journal articles.

In the first part we will study selected sections of chapters 2-5 of the textbook by Laffont and Martimort. Chapter 2 explains the basic idea and insights of adverse selection. Chapter 3 studies some important extensions of the basic adverse selection model: for example, environments where the agent may be of more than two “types”, which may lead to “bunching” (i.e., several types being offered the same contract).

Chapter 4 explains the basic idea and insights of moral hazard, using a very stylized model with two effort levels and two possible outcomes. Chapter 5 extends this model in some interesting ways, for example: environments with a continuous effort variable, leading to a discussion of the so-called first-order approach.

The journal articles that we will study are about the political economy of industrial economics, and managerial incentives and product market competition.

Content: The primary aim of the course is to introduce students to central results and insights in contract theory. An additional aim is to familiarize students with some selected examples of how contract theory can be used to study economic questions. A broader aim is that students who take the course will, by working extensively with theoretical models, acquire analytical skills that are transferable to other kinds of intellectual problems.

After having successfully completed the course the students will be able to formulate and solve contract theory models. The students will also be able to read professional journal articles that apply contract theory and to use this broad analytical approach when analyzing and thinking about questions where incentives play a role.

In order to pass the course, the student must demonstrate familiarity with and understanding of the approach of contract theory. Moreover, the student must show ability to solve and work with models used in contract theory and ability to understand the logic behind the results. The very good should at the end of the course be able to demonstrate full or almost full capability of using and understanding the techniques of analysis taught in the course.

Teaching and learning methods: Lectures

Academic qualifications: No graduate courses are required, but a certain proficiency in solving game-theoretic models is helpful.
Language: English

Formal requirements: A number of projects must be approved in order to sit the exam, please see the course description at www.kurser.ku.dk.
Learning Outcome:

- Financial markets
- Introduction to the various asset classes
- Bonds
- Stocks
- Derivatives
- Pricing Methods
- Bond mathematics
- Capital Asset Pricing Model (CAPM)
- Arbitrage Pricing Theory (APT)
- Binomial Model
- Black-Scholes Model
- Definitions of Market Efficiency
- Behavioral Finance / Corporate Finance
- Valuing Real Assets
- Optimal Capital Structure
- Optimal Dividend Policy
- Modigliani-Miller Theorems
- Incentives, Information and Corporate Control

Content: Upon completion of the course, students will have developed an understanding of the different asset classes in financial markets as well as an approach on how to price them; including bonds, stocks, forwards, futures and options. Furthermore, the pricing methodology will also be used to illustrate how firms use these methods in order to choose their investment projects. Within the realms of Corporate Finance, we will explore the optimal capital structure of the firm, optimal dividend policy as well as how these and other factors influence how management runs the company.

Teaching and learning methods: Lectures and classes

Academic qualifications: Kundskaber svarende til 1. og 2. år af bacheloruddannelsen
Language: English

Formal requirements: A number of exercises must approved in order to sit the exam, please see the course description at www.kurser.ku.dk.
Learning Outcome: Some of the central issues in Finance relate to the financing decisions of firms, in particular the relative use of bond and equity financing. Key aspects of this capital-structure decision include the tax advantages of debt, costly bankruptcy, risk management and hedging, using the capital structure to control managers, and signaling to the market using the capital structure. We also consider the market for corporate control, with leveraged buyouts as well as mergers and acquisitions.

Content: Corporate Finance Theory builds on the third-year course's investigation into firm capital structure. We take for granted that course participants have already received a full introduction to the principles of corporate finance. We now go deeper into the particular details of some of these arguments. To accomplish this, we go beyond the textbook and base the course on classic and new articles from academic finance journals. The tools and knowledge obtained in this course are of immediate relevance for graduates seeking employment in the business and financial industries. The final exam tests the students' specific and general knowledge of the aforementioned aspects of corporate finance theory, emphasizing three abilities:

1. The ability to readily explain and discuss key theoretical concepts and results from academic articles, as well as their interpretation,

2. The ability to carefully derive and analyze results within an advanced, mathematically-specified theoretical model,

3. The ability to apply the most relevant theoretical apparatus to analyze a given, new case-based problem.

In order to pass the course, the student must show satisfactory performance in all three areas.

Teaching and learning methods: Lectures

Academic qualifications: Students are expected to have passed the third-year course Corporate Finance and Incentives, or an equivalent elaborate introduction to Finance. In particular, students should have a good understanding of the topics covered in Part 5 (Capital Structure) of the textbook “Corporate Finance” by Jonathan Berk and Peter DeMarzo, or in another book of a similar level.

Language: English
**6.6.1.14 AØKA08013U Datamatik 1 (in Danish only)**

**Learning Outcome:** Kurset sigter mod at give de studerende grundlæggende IT-viden baseret på problemstillinger knyttet til udnyttelse af administrative data. Opbygning af og udtræk fra administrative databaser kombineres med effektiv databearbejdning i regneark. På kurset indøves dels en selvstændig anvendelse af pc'en som udviklingsværktøj, og dels gives der en systemmæssig baggrund for kommunikation med IT-specialister.

Emnekrede i faget er:

- Udarbejdelse af makroer og funktioner i regneark
- Design og opbygning af grafiske brugergrænseflader (GUI)
- Programmering med grafiske kontroller
- Design og anvendelse af databaser
- Design og opbygning af web-sites
- Systemoplæg og kravspecifikationer

I database undervisningen anvendes SQL mod Centrets SQL-Server database. Algoritmisk programmering baseres på anvendelse af VBA (Visual Basic for Applications) primært i forbindelse med udarbejdelse af makroer og funktioner i Excel.

**Content:** Datamatik 1 er et løsningsorienteret kursus, der sigter mod at give de studerende IT-viden og færdigheder som direkte kan bruges i arbejdet som samfundsvidenskabelig kandidat eller studentemedhjælper.

Efter at have gennemført kurset kan de studerende:

- Forklare sammenhængen mellem regneark, programsprog, applikationsgeneratorer og databaser
- Indspille og tilrette makroer til regneark som EXCEL, samt i egentligt programsprog skrive nye funktioner og procedurer til regnearket.
- Designe, oprette og teste Windows baserede applikationer
- Udforme mindre algoritmer
- Forklare principperne i relationsdatabaser
- Designe, strukturere og oprette mindre databaser
- Forstå SQL og anvende sproget til komplekse forespørgsler som indeholder logiske udtryk og subqueries
- Forklare de grundlæggende teknologier der ligger bag World Wide Web
**Teaching and learning methods:** Forelæsninger og øvelsesopgaver

**Academic qualifications:** Ingen

**Language:** Dansk

**Formal requirements:** Evt. mødepligt afhængig af udbudstidspunkt
**6.6.1.15 AØKA08197U Demography**

**Learning Outcome:** This course will cover the following topics:

- Fertility: Measures of Fertility,
- Parity Determinants of Fertility and Birth intervals
- Marriage: Analyses of Marriage, Cohabitation and Divorce
- Mortality: Measures of mortality, Life Table
- Migration: Measures and determinants of migration
- Lexis diagram
- Survival analysis

**Content:** This course is an introductory course in demography. The aim of the course is to provide an understanding of the basic methods and concepts in demography. The course focuses on the micro foundation of demography. Part of the course will be devoted to survival analysis since it is a very useful method in demography (and in other fields of economics).

The overall goal is that students after having completed the course should be able to:

- Understand the basic methods of demography
- Interpret and explain the concept of demography
- Read and understand empirical analyses of demographic transitions
- Understand the statistical methods underlying the demography measures
- Make simple calculations/estimations of basic demographic measures of fertility, mortality, migration and marriage

**Teaching and learning methods:** Lectures

**Academic qualifications:** Knowledge corresponding to the 1st and 2nd year on the BSc in Economics.

**Language:** English

**Formal requirements:** The student are required to hand in write mandatory papers before they can sit the exam. The mandatory papers can be made in groups of up to four students. The papers has to been approved before the students can participate in the exam.
6.6.1.16 AØKA08031U Development Economics

**Learning Outcome:** This is an introductory course in development economics at advanced undergraduate level. General textbook material and selected articles on the subject form the core of the readings, and a broad range of topics is covered, including basic principles and concepts, theories of development and structural change, micro- and macroeconomic issues and economic analysis as well as key policy issues and recommendations. The students are exposed to current questions and historical, long-run features. The various competing paradigms form part of the course together with reference throughout to existing strategies of economic development.

**Content:** Development Economics has as overall aim to introduce the students to the field of development economics. Having successfully taken this course, students will be able to:

- Explain both the basic concepts used and the issues addressed in Development Economics and document sound ability to apply standard micro, macro and empirical theory and methods to questions of development.

- Identify, describe and assess the measurable indicators, which are used in socioeconomic surveys and analyses of the economic, social and institutional situation and characteristics of developing countries.

- Describe the main historical experiences with development and structural change in the third world (including for example urbanization and rural-urban migration) and reflect convincingly on present challenges and perspectives for the future.

- Lay out the key elements of the classic theories of development as well as more recent theories and development models, and document ability to undertake critical assessment, add nuance and relate the various theories/models to each other.

- Review theories and empirical evidence on economic inequality, poverty and growth and their internal relationships.

- Present and discuss existing theory and empirical evidence on the importance of human resources (health, education and population) and the role of agriculture in the development process.

- Summarize and assess theory and empirical evidence on the economic characteristics and functions of selected markets (land, labour and capital/credit) in developing countries and relate the interaction between the environment and development to concepts and methods used in economics.

- Explain how selected macroeconomic policies (fiscal, financial, monetary, exchange rate, trade and structural) are applied in the context of economic reform programmes in developing countries and reflect about ongoing professional debate in areas such as international trade, foreign direct investment and foreign aid.
Convey knowledge about issues, theory and empirical evidence in the field of development economics in a clear and well-argued manner and demonstrate ability to apply taught theoretical and empirical knowledge in a competent, coherent and original way in relation to current challenges.

**Teaching and learning methods:** Lectures

**Academic qualifications:** Students should have taken Microeconomics and Macroeconomics courses corresponding to 2nd year undergraduate level at the Department of Economics.

**Language:** English

**Formal requirements:** None
Learning Outcome: I faget Dynamiske Modeller gennemgås følgende emner:

- Komplekse tal og deres anvendelser samt Euler's formler og komplekse eksponentialfunktioner.
- Differentialligninger af anden og højere orden med konstante koefficienter.
- Stabilitet og differentialligningssystemer.
- Elementær topologi i normerede vektorrum.
- Kontinuitet og differentiabilitet for funktioner af flere reelle variable.
- Konvekse mængder i vilkårlige vektorrum og nogle udvalgte separationssætninger.
- Korrespondancer og deres vigtigste egenskaber og anvendelser.
- Forskellige maksimeringsproblemer for funktioner af flere reelle variable og fikspunktssætninger.
- Variationsregning og kontrolteori.

Content: Moderne økonomisk teori, statistik og økonometri benytter i udstrakt grad matematik både som et regneteknisk hjælpemiddel og som et sprog, der er velegnet til at udtrykke og tydeliggøre forskellige begrebsdannelser inden for fagene. En klar og logisk formulering gør det muligt at udnytte den metode og stringens, som kendtegn matematik og matematisk tankemåde. Endvidere kan man med anvendelse af avancerede matematiske teorier og metoder arbejde med særlige abstrakte og komplekse problemstillinger inden for de økonomiske fag og specifikke fagdiscipliner. Matematisk teori medvirker i denne sammenhæng til at skabe klarhed og overblik inden for omfattende økonomiske problemfelter, hvilket er helt i overensstemmelse med økonomifagens videnskabsteoretiske placering.

Faget "Dynamiske Modeller" har til formål at give de studerende en dybtgående forståelse af en række avancerede dynamiske begreber fra den moderne matematiske analyse, som de kan benytte inden for økonomisk teori både på bachelorstudiet og kandidatstudiet. Undervisningen bygger direkte på de matematiske emner, som de studerende har opnået kendskab til i kurserne "Matematik A" og "Matematik B".

Faget udbyes i andet semester på 2. studieår, og det forventes, at de studerende opnår et sikkert kendskab til fagets og dets metode, og at de kan gennemføre en sikker og stringent fremstilling i form af løsning af både konkrete og abstrakte skriftlige opgaver, der også fordser et klart, stort og tværdisciplinært overblik inden for følgende emner:

Komplekse tal og komplekse funktioner, differentialligninger af vilkårlig høj orden, global asymptotisk stabilitet, differentialligningssystemer, generel topologi, vektorfunktioner, Jacobimatrixer og lokalt invertible funktioner, ekstremumssætning under bibetingelser, korrespondancer og værdifunctioner, fikspunktssætninger, variationsregning og optimal kontrolteori.
**Teaching and learning methods:** Forelæsninger og øvelser

**Academic qualifications:** De studerende forventes at have faglige forudsætninger svarende til Matematik A og Matematik B.

**Language:** Dansk

**Formal requirements:** Der indgår en række obligatoriske opgaver og/eller prøver i faget. For at kunne indstille sig til eksamen, skal man opfylde de krav til godkendelse af opgaver og prøver, som står beskrevet i kursusbeskrivelsen på [www.kurser.ku.dk](http://www.kurser.ku.dk) for faget i det pågældende semester.
Learning Outcome: We study what factors determine productivity levels and productivity growth in the longer run. We regard productivity as an endogenous variable evolving over time in response to human capital accumulation and research and development. The emphasis is on the industrialized world. We also address models and current issues related to technology transfer, catching-up, natural resources and the environment. There will be an emphasis on formal models (understanding them, being able to evaluate them from both a theoretical and empirical perspective, and to use them to analyse specific questions). Calculus intensity is high.

Themes:
1. How is the world income distribution evolving?
2. Do countries converge towards steady state paths and, if so, how fast?
3. Why do growth rates differ over long periods?
4. How rapidly do marginal returns to produced inputs diminish?
5. How can the emergence of new product qualities and new production methods be modelled?
6. Is continued economic growth compatible with sustainable economic development?
7. With a view to the climate change problem, what should the discount rate be in long-term social investment?

Content: The aim of the course is to provide students with the skills needed to function as a trained economist working on the problems of economic growth in an international organization, business environment, government or non-governmental organization or pursuing a research degree. By the end of the course the student should be able to:
1. Explain and apply major theoretical growth models and discuss their relevance to the understanding of the economic growth process.
2. Apply the concepts and analytical tools of growth theory to specific questions related to technical change and the evolution of productivity.
3. Account for key empirical regularities concerning technical change and evolution of productivity.
4. Apply knowledge of econometrics to articles that conduct quantitative analysis in the context of economic growth.
5. Comment in an enlightened way upon key debates among economists concerning factors that matter for economic growth.
A perfect score of 12 at the final exam is given if the student is able to demonstrate -- in a clear, concise and convincing way - to have obtained thorough competence in dimensions 1 to 5.

Teaching and learning methods: Lectures and classes

Academic qualifications: Knowledge of basic macro and growth models at a level corresponding to David Romer, Advanced Macroeconomics, and of mathematical techniques such as differential equations, phase diagrams, and some optimal control theory.

Useful reading before the course is taken includes the mentioned book by David Romer (chapters 1-3) and for example Charles Jones, Introduction to Economic Growth, 2. ed., Norton 2002.
Useful reading before the course is taken includes the mentioned book by David Romer (chapters 1-3) and for example Charles Jones, Introduction to Economic Growth, 2. ed., Norton 2002.

Language: English

Formal requirements: One assignment in the middle of the semester must be completed and accepted for access to the final exam.
Learning Outcome: The Course gives the student thorough knowledge of the classical economic sociological analysis on the development of the modern society.

Classical economic sociology emerged out of a concern about the cohesion of and individuals' life in modern society i.e. the society that emerged during the industrial revolution. A critical approach to societal development was developed and is also today a core ingredient in economic sociological theories and analysis.

The course gives an introduction to classical economic sociology with an emphasis on Weber, Marx, Durkheim and Simmel. The main part of the course is on contemporary economic sociology. The student gets knowledge of the contents and developments of economic sociology since Granovetter's reintroduction of the concept of embeddedness in the mid 1980s and the development of economic sociology with contributions from among others Gary Becker, Bourdieu as well as Giddens and Habermas.

The course contains texts debating the understanding of markets, the role of the state and the impact of social structures on the understanding of how modern society works and how it should be studied. Knowledge on economic sociology, sociological theory and economic sociology analysis on societal developments gives the student a comprehensive knowledge of the manifold and creative economic sociological analysis of modern society and the societal frames and background for individual action.

This gives the student knowledge in ways of analysing modern society and individual actions that in many ways challenges economic theory.

Content: The student will get knowledge on the contribution to economic sociology from sociological classics, the development of contemporary economic sociology since the mid 1980s and how this challenges the view on society and its development put forward by economic theory.

The outstanding performance in the course contains:

- A precise explanation of one or more economic sociological approaches on a given subject or societal problem
- A critical discussion of the economic sociological theories relevance in relation to this
- In cases where more theories are included a statement on whether and how these are complementary or in competition
- In the explanations it is important to use the concepts that are developed in and used in economic sociological analysis.

Teaching and learning methods: Lectures

Academic qualifications: None
Language: English

Formal requirements: None
Learning Outcome: The course covers two aspects of the topic, microeconomics of banking and risk management. In the microeconomics part, teaching starts with discussing key competences of banks, proceeds to fundamental aspects of banking such as the loan contract and credit rationing, discusses liquidity problems and bank runs, and ends up with a treatment of bank regulation involving the roles of central banks, deposit insurance and financial supervision authorities. In the risk management part, the course covers the basics of risk management in banks, measurement of risk, and then discusses the different types of risk occurring in banking, namely liquidity risk, interest rate risk, market risk, credit risk, and operational risk. For each of the risk types, the course covers the measurement of risk as well as methods for reducing risk.

Content: The course aims at giving the students the abilities and competences needed to understand and to deal with main problems in the banking sector, both with respect to the functioning of the sector as a whole and the single bank. More specifically, the students are expected after the course to have the following competences:

1. Knowing and assessing the roles of banks in the financial sector, related to the basic problems of asymmetric information in its different forms,
2. Knowledge of contract forms and the conditions for choosing a given contract depending on the underlying economic conditions,
3. Understanding the background of problems related to difficulties in obtaining credits and how they can be remedied,
4. Knowing about the interrelation between competition in the banking sector and interest rate levels,
5. Understanding the causes of bank runs and bank panics, knowledge of different institutional setups designed for coping with bank runs,
6. Knowledge of basic principles for deposit rate insurance, understanding of the intrinsic problems related to assisting troubled banks, as well as the distribution of competence among different authorities
7. Knowledge of basic principles of risk management and of risk measures, as well as the basic organisation of risk management in a bank,
8. Knowledge of different types of risk and the way in which these risks are measured and mitigated.

Teaching and learning methods: Lectures

Academic qualifications: None

Language: English
Learning Outcome: This course explores why individuals and society invest in education. Education has many private benefits (earnings, employment, health and longevity, consumption value), as well as social benefits (GDP growth, tax income, positive externalities). Education also affects inequality within a generation and across generations. Throughout this course, current policy issues concerning education will be discussed. Economic models will be connected to data that can be used to test the models' implications, and students will learn how models and data can serve to inform education policy. Applications will address primary and secondary education, university education, and vocational or on-the-job training, and place the Danish and European experience in an international context.

First, we will introduce human capital theory to study individual decision-making. It will be used to analyze investments in education and how they are affected by ability, comparative advantage, family background, and macroeconomic conditions. We will encounter the empirical problem of disentangling the return to education from the return to innate ability, and investigate how the association between education and individual earnings has changed over time.

At the societal level, we will study the social return to education and the financing of publicly provided schooling. Looking at the production of education, we will ask how educational outcomes are produced by schools, whether more money produces higher student achievement, and which school inputs are more or less effective in producing desired educational outcomes (such as PISA test scores). We will consider the potential of early childhood education in the context of skill formation over the life cycle. We will also reflect on possible conflicts between societal goals - efficiency, equity, and liberty - that influence decisions about the allocation of education resources.

From a macro perspective, education matters for national economic growth as well as for individual mobility. We will investigate whether there is a risk of over-education, or whether individuals under-invest in light of a rapidly changing economic reality and international competition. We will also study the intergenerational transmission of economic status through parental investments, credit constraints and achievement inequality, and the resulting income distribution.

Content: This course will teach students how to apply economic thinking to education-related questions. In doing so, the class will draw on a wide range of economic principles and apply material learned in the first year. The variety of models and perspectives will range from macro to micro, including labor economics, macroeconomic growth, and public finance. Students will be equipped with an economic toolbox to evaluate education policy issues methodically, and should eventually be able to use these tools to inform education policy. While the course will be based on theory, it is nevertheless of an empirical nature: recent data will be used to evaluate current issues, and students will learn how to read empirical articles that form the state-of-the-art in economics of education.

After taking this course, students should be able to apply economic theories to address education question as a well-trained economist. For this, they have to develop the abilities to

- Understand economic models in the education context, confidently identify determinants of equilibrium/optimality and describe the role they play relative to each other.
• Identify key questions in a brief non-specific text, presented as a policy issue rather than an economic model. Then, link the key questions to economics of education.

• Learn how to choose the correct theory or framework that helps them organize an argument around a given education issue.

• Communicate their theory-based arguments orally and in written form. Construct concise cases where they show their well-rounded appraisal of the situation that connects theory to the real world.

• Read selected articles in the current literature, and examine whether the presented empirical evidence convincingly identifies causal relationships. Recall evidence and select the articles or arguments that are relevant to a given problem.

• Evaluate policy proposals critically and present arguments in favor or against them.

**Teaching and learning methods:** Lectures supplemented with guided practice session.

**Academic qualifications:** Students should have taken Microeconomics A and B and Econometrics A and B courses corresponding to the 2nd year undergraduate sequence in the Department of Economics.

**Language:** English

**Formal requirements:** There will be mandatory assignments, which must be approved for students to be able to take the exam.
Learning Outcome: Main topics of the course include the monetary integration of the EU, trade and external relations in general. Focus will be on the Economic and Monetary Union (EMU), the reforms of the Stability and Growth Pact, including the European Stability Mechanism (ESM) plus the state and the functioning of EU’s external and internal economic relations/market.

The course will also offer insight into EU’s budget, the common agricultural policies (the CAP) and regional integration. During the coverage of the various topics, background information on the EU institutions will be given. The recent developments in Ukraine and EU’s energy policy will be presented as a specific case study during the course.

Content: This course seeks to analyse the speed and intensity of EU’s economic cooperation and integration. The course focuses on understanding the EMU crisis, and its implications for EU’s economic integration. More generally, the course seeks to provide understanding for EU’s economic cooperation and integration as well as ability to analyse those factors that either impede or facilitates more European integration.

The course is among others relevant for those students that aim for jobs in the public sector, in private or semi-public interest group organisations, or in private companies, where a systematic understanding of EU’s economic relations is valued highly.

The course is also targeted at students that later in their studies are supposed to participate in exercises or write dissertations about EU-related matters. It also tries to provide a profound introduction for those that wish to do research on EU-matters or students that might at some point in the future wish to prepare for EU competitions (concours).

Teaching and learning methods: Lectures

Academic qualifications: Due to the fact that EU’s economic development and integration include almost all aspects of economic theory, the course requires a profound macroeconomic background from bachelor or advanced courses. Particularly relevant are those courses that include international trade and monetary theory.

Language: English
Content:
The aim of this course is to introduce students to the microstructure of the foreign exchange market. The microstructure approach, which differs from the standard macroeconomic approach where exchange rates are explained by macroeconomic relationships, focuses on the behavior of and interaction between market participants, for example dealers, corporations and central banks. In other words, the microstructure literature studies the details and importance of foreign exchange trading as determinants of the price of foreign exchange. In this context we will discuss both theoretical models and the empirical evidence including central bank interventions on the foreign exchange market from both a macroeconomic and a microeconomic perspective.

The course is divided into three modules. In the first module we focus on how the foreign exchange market is organized and the behavior of market participants. Within this module we also discuss the risks associated with holding foreign currency. Topics include instruments such as spot and forward exchange rates, how trades take place in the interbank and the retail segments of the market, exchange rate risk, and carry trade.

The second module focuses on the microstructure of the foreign exchange market. We will discuss models of the foreign exchange market and empirical tests of model predictions. The module also bridges the gap between microstructure and macroeconomic exchange rate models by focusing on releases of macroeconomic news and its effects on the exchange rate. Topics include order flows, transmission of information between dealers and customers, intraday trading, feedback trading, forecasting, and macroeconomic news.

The third module focuses on how central bank interventions can affect exchange rates, a topic analyzed both from a macroeconomic perspective as well as from the microstructure perspective using models discussed in the second module. Topics include sterilized and non-sterilized interventions, public versus secret interventions, channels of influence of interventions, and central bank reaction functions.

Course Descriptions:
After completion of the course, students should be able to:

- describe how the foreign exchange market is organized and how trades take place in the interbank and the retail segments of the market;
- describe the institutional features of the foreign exchange market products (spot and forward contracts) and be able to distinguish between speculation and arbitrage;
- describe the types of risks that foreign exchange traders face and how these can be managed;
- describe and use microstructure based models to analyze price determination on the foreign exchange market and summarize the empirical evidence on these models;
- describe and explain how macro data releases affect exchange rates and summarize the empirical evidence;
- describe the channels by which central bank intervention can affect the exchange rate and summarize the empirical evidence on these channels;
- continue to undertake further study of international finance with a high degree of autonomy.

The grade will be determined on how students accomplish the learning objectives. In order to obtain the highest grade, the performance with respect to the learning objectives must be exceptional for a master student (creative, thorough, well-reasoned, well-argued, insightful, well-written, clear and methodologically sound) and it must show clear recognition, incisive understanding, and mastery of all topics introduced in class.
For pass, the performance with respect to the learning objectives must occasionally be creative, original, thorough, well-reasoned, well-argued, insightful, well-written, clear, and methodologically sound and should show some signs of recognition, understanding of salient issues, adequate reasoning, and an ability to draw relevant comparisons but numerous errors, inconsistencies, or other problems are present.

**Teaching and learning methods:** 2 hours of lectures one to two times per week for 14 weeks.

**Academic qualifications:** Prior to enrolling in this course, students should have taken Corporate Finance and Incentives, International Monetary Economics and Econometrics C. Financial Markets is recommended but not required. The course requires a good grasp of econometrics and **mathematics**

**Language:** English

**Formal requirements:** None
Learning Outcome: Most western countries are welfare countries with a high income per capita, and a relatively equal distribution of the income in a well-developed democracy. The governments and parliaments have not handed over the distribution of the income to the market alone, but have taken over both in order to obtain another distribution but also to prevent or repair market failures. In Denmark where the welfare thought/idea is widespread the public sector is large and it takes care of the distribution of 50% of the economy. By that a trade-off is arisen between the wish to obtain social justice and the demand for economic efficiency. This is the main theme in the social welfare policy. Will the welfare state survive and how will it get through the global financial crisis.

The social welfare policy is undergoing remarkable change in the 21’ century. Within the 20’ century the transition in the welfare system took place – from classical capitalism to modern welfare economy, a mixed economy in a market with a large public sector. Now the western market is facing the challenge from the globalization, demography – with the prospect of lack of labor forces and increase in the senior part of the population. In Denmark the senior part of the population (over 60 years) is increasing from today 20% to 30” in 2050. But countries as Spain and Italy will reach as high as 40% and there over. In Denmark the welfare accord 2006 and 2011 will result in later retirement age and public pensions.

The aim for the course is therefore to apply insight in the theories behind the welfare policy. To illuminate the structure and the meaning of the welfare policy today. And by this insight to be able to analyze the challenges that the society and in the social policy, are facing in this century.

The curriculum is split up in 7 themes/subjects.

3 main themes:

AI - The Social Welfare challenge of the future economy

AII - The Theory of Social welfare

AIII - The current and historical ideological basis for the social welfare state

And 4 special themes/subjects:

BI - Economic distribution, redistribution, poverty and disintegration. A sub-theme of this curriculum is immigration, integration and fiscal sustainability.

BII - Pension and retirement

BIII - Flexicurity, Incentive structure of the Danish Labor market

BIV - State, Market, And civil society.

Content: One of the most important aspects of the western countries economy and structure of the society are that they are welfare states. Denmark is a leading country with regard to welfare. This course aim is to
study these aspects in these countries. The social policy and the welfare policy will be under severe challenges.

The demographic challenge is the biggest challenge in the future macroeconomic milieu. It is challenging the whole structure and design in the current welfare system. All societies will be influenced by the increasing ageing, but also by the globalization, and the increasing individualism, which will place great demands on the structure of the social policy. The course Economics of welfare will contain main elements of analysis on the future sustainability of the economy.

Achieved competence after the course:

It will be expected of the students – finishing this course – that they will be qualified to be able to administrate economic and political analyzing functions, on a fair level in both the public and private sector. Some students could be employed in analysis functions/jobs in research units or units of analysis, other students in this course can be employed in international as well as national — regional or in municipalities — as well as in private companies, banks, insurance and in pension funds, and voluntary institutions, and social, humanitarian associations and NGO’s who are working with social welfare, social conditions or pensions.

Aim for the course: Economics of welfare:

Within the welfare policy the students will analyze and understand the consequences of the different social welfare political models and at the same time analyze a long row of macroeconomic consequences.

To obtain highest grade at the exam the students (when they have understood, finished, and read the course) are expected to master the following:

- Be able to analyze and understand the different outcome of institutional solutions on the background of different historical decisions, and analyze the economic consequences, which are connected with changes in the system (in Denmark amongst other countries). And understand and analyze the structure of the Danish Welfare state today.
- To obtain a thorough knowledge of social welfare theory, and its central economic theoretical ground ideas. This includes understanding the trade-off between social justice and economic efficiency, and when it is optimal to provide private insurance benefits, versus state intervention. Finally, required an elementary knowledge of the DREAM-model.
- To be able to analyze differences and inequalities between different segments in the population. The student should be able to understand and analyze the concept of poverty, disintegration and the economic diversion between rich and poor, between generations and the life circle hypothesis.
- Be able to understand and calculate elementary economics and statistical sizes in basic demography and be able to recognize and understand the economic model for “generational accounting” and to use this model in relevant countries.
- Be able to understand and analyze the actuarial technique behind pension schemes. Understand and analyze “the five financial sources” impact on different goals and be able to work with different
models on labor supply and the influence on retirement from the labor market (the neo classic and the pull, push jump theory)

- To be able to understand, and analyze social welfare policy and its many alternative solutions in the market, in the public welfare, and in the civil society.

**Teaching and learning methods:** Lectures

**Academic qualifications:** General knowledge in macro economy and welfare policy. Welfare politics and the Social welfare state is International, and in Denmark it’s a divided field. Economists can immediately be able to follow the course in an extension of Macroeconomics C. The course requires analytical skills in light of future economic challenges (e.g., demographics, Globalization, individualization, and the large public debt reorganization)

**Language:** English

**Formal requirements:** None
Learning Outcome: The course is structured in Four Parts covering two weeks of full time work as follows, and an individual oral exam:

Part One: Kick off seminar, comprising lectures on innovation, entrepreneurship and rapid prototyping as well as group formation and various group exercises, will provide the students with the appropriate academic framework as well as providing for experiential learning experiences and other group exercises. Part One will set the stage for the innovation challenge, which the students will take on in teams of three to five students each. Duration: Four days.

Part Two: The students will work in teams on the practices of identifying value generating ventures, select among alternative solutions through rapid prototyping and develop group findings. Students may draw on assistance and guidance based on a constrained resource-and-supply model. Students will also receive instruction and practice in preparing and executing “elevator pitch” -type presentations. Duration: Five days.

Part Three: Each team of students will get a chance to present their results to a panel comprising academics and practitioners. Practitioners will represent financing providers such as venture capitalists as well as experienced entrepreneurs and advisors. Projects will be assessed according to potential for value creation, resource requirements, likelihood of success and risk factors. Duration: One day.

Part Four: During Part Four each student will independently produce a two page write up on their experience and insights gained from the course based on the course literature, the kick off in Part One, the group work in Part Two and the pitch presentations in Part Three. Duration: Two Days.

Content: In many entrepreneurial processes - in enterprise as well as start up settings - a key task for decision makers is to select among different mutually exclusive options in terms of value generation potential, business model, needs covered and technologies under time, information and resource constraints. Rapid prototyping is often used as an effective means of testing new ideas, to ensure timely and economically efficient feedback, eliminate low value added solutions and to execute on tested assumptions. The aim of the course is to provide students with opportunities to work in small teams using experiential learning techniques and rapid prototyping to experience firsthand the cycle from idea to deliverable within severe time and resource constraints, and thus for students to be better prepared to contribute to innovation processes and entrepreneurial activity.

Teaching and learning methods: The course will incorporate a mixture of teaching methodologies incorporating lectures, group exercises and group as well as limited individual counseling and guidance. Although most of the work will be performed in groups, students will be graded on an individual basis according to their contributions through the preparation and submission of write ups and upon an individual oral exam.

Academic qualifications: Bachelor degree from accredited institution
**Language:** English

**Formal requirements:** The student must actively participate in class, contribute to the group project and take part in the oral presentation as a prerequisite for submitting the exam paper.

Content: Kurset har to sigter. Dels at give deltagerne en indføring i juridisk metode, dels at give deltagerne en indføring i grundlæggende erhvervslige principper, d.v.s. de regler der regulerer forholdet mellem kommercielle parter og de regler, der regulerer forholdet mellem erhvervsdrivende og forbrugere. Målet søges nået ved forelæsninger, ved praktiske eksempler, ved besvarelse af et skriftligt opgavesæt, ved gennemgang af domme og kendelser.

Teaching and learning methods: Forelæsninger

Academic qualifications: Ingen

Language: Dansk
**6.6.1.27 AØKK08097U Family Economics**

**Learning Outcome:** The course will cover the following topics:

- Household production models, time use
- Marriage: Gains from marriage and cohabitation, matching in the marriage market, divorce
- Fertility: Models of fertility, empirical trends in fertility, the cost of children, quantity-quality trade-off in fertility
- Intra-household allocation: Division of labor; Unitary and collective models of family decision making and allocation within the family
- Labour supply in the family: The gender wage gap and the family gap
- Child development: Child development production function, parental investments, daycare and schooling
- Altruism in the family – intergenerational transfers

**Content:** The aim of the course is to provide an understanding of the theoretical foundations for Family Economics, empirical applications of the theory, and recent trends in family patterns. The course focuses on the micro foundation of Family Economics.

Students having completed the course should be able to:

- Understand the basic theory behind Family Economics
- Understand empirical analyses of issues related to Family Economics
- Perform simple statistical/microeconometric analyses of empirical problems related to Family Economics

**Teaching and learning methods:** Lectures. The lectures will cover theoretical aspects of Family economics, but also open up to empirical applications. The empirical applications will be discussed in a class-like structure, with student preparation and some student presentations.

The last 4 weeks of the semester will be devoted to the students writing a term paper to be handed in by May 23, 2014. The term paper should consist of an empirical analysis of a problem within Family Economics. The students choose a topic and find suitable data, and the outline for the term paper has to be approved by the lecturer. The students should write individually. The final grade in the class is purely on the basis of the graded term paper.

**Academic qualifications:** Knowledge of basic microeconomics and basic microeconometrics (at an equivalent level to Micro B and Econometrics B) is required.

**Language:** English
**Formal requirements:** Outline for the term paper has to be approved by the lecturer.
Learning Outcome: An outline of the contents:

- Properties and stylized facts of univariate asset returns and their variability.
- Analysis and discussion of volatility models such as GARCH-type models and stochastic volatility (SV) models as well as realized volatility (RV) and switching volatility models. In particular, stochastic properties of the processes will be discussed.
- Estimation of volatility and volatility models based primarily on (quasi) maximum likelihood. This includes application of the EM-algorithm as well as the Kalman-filter.

Content: Applying and understanding volatility models such as the well-known ARCH, GARCH and stochastic volatility models require a background of fundamental methodological concepts such as estimation, stochastic properties of time series as well as simple programming. The aim of the course is to provide students with an introduction to these issues in financial time series analysis such that, on the one hand, volatility models can be implemented and discussed, while at the same time advanced financial econometric models can be approached. This is achieved by analyzing implementation and theory of univariate volatility models.

After completion of the course the student will specifically be able to:

1. Analyze and discuss classic univariate volatility models and volatility modeling in financial econometrics.
2. Analyze and discuss stochastic properties of the models.

Teaching and learning methods: Lectures and classes

Academic qualifications: Econometrics II or similar. This may be followed at the same time.

Language: English

Formal requirements: During the semester there will be a number of small hand-in exercises that have to be accepted in order to sit the exam.
Learning Outcome: This course introduces topics from research in financial time series econometrics. For each topic, the econometric methods are discussed and illustrated by empirical applications. Topics are selected from within: Econometric Modeling of Asset Returns: - Multivariate GARCH models with application to portfolio selection and value at risk (VaR). - Test of market efficiency: Asset return predictability.

Static and Dynamic Asset Pricing Models: - The capital asset pricing model (CAPM) and the asset pricing theory (APT) model. - Term structure models, including co-integration.

High-Frequency Modeling: - Continuous time methods - Autoregressive conditional duration (ACD), and integer valued financial time series models.

Content: This course introduces topics from research in financial time series econometrics. For each topic, econometric methods are discussed and illustrated by empirical applications. After completion of the course the student will have obtained a fundamental knowledge of central econometric modeling as applied in research within financial econometrics. For each topic treated this will include: - The ability to analyze the financial econometric models such that their properties are well-understood from a methodological point of view. This will include theory for estimation and testing, dynamic properties and linkage with applied literature. - The ability to implement the econometric models in applied work and interpret the results empirically and theoretically.

The topics covered, e.g. multivariate volatility modeling, asset pricing models and term structure models, will vary from year to year.

Teaching and learning methods: Lectures

Academic qualifications: A background in econometric methods as presented in e.g. "Financial Econometrics A". In particular, this includes likelihood-based analysis of univariate GARCH models.

Language: English

Formal requirements: None
Learning Outcome: This course examines the basic channels through which financial frictions affect macroeconomic outcomes. Emphasis will be given to the transmission mechanisms that lead to amplification and persistence of shocks, including the role played by liquidity. Using several general equilibrium models we will learn more thoroughly the functioning of financial markets, why they are prone to crises, and the rationale for financial regulation.

Content: Students are expected to learn the basic imperfect information models of moral hazard and asymmetric information and their applications to the understanding of financial intermediation. Students will be taught complex models that, building on the previously learned financial frictions, describe different channels through which they affect the business cycle, i.e. they produce amplification and persistence of shocks. At the end of the course the student is expected to understand the role of different financial frictions, and to be proficient in the application of the concepts and methods from the models covered in the course. The student should show competence in analyzing a macroeconomic problem, where the above-mentioned concepts and methods are central, that is competence in solving such models and explaining in economic terms the results and implications and how they derive from the assumptions of the model.

The particularly good performance, corresponding to the top mark, is characterized by a complete fulfillment of these learning objectives.

Teaching and learning methods: Lectures and problem sets

Academic qualifications: B.Sc. and Macroeconomics III, Microeconomics III

Language: English
Learning Outcome: This course examines the financial markets from a Micro perspective. When traders operate in the financial market, how do they arrive at the transactions prices? How is the traders’ dispersed information incorporated into these prices? What determines the liquidity and depth of an asset market? What is the optimal behaviour for traders in financial markets? Why do bubbles and crashes arise? Do the institutional details of the exchange influence this price formation process? If so, how should exchanges and regulators ideally design the rules of trading? Is there a role for market making, should the market be fully transparent, should insider trading be permitted, should transactions be taxed, and is high-frequency trading good or bad for the market?

Financial economics addresses these and related questions in the field of financial markets’ microstructure. This course seeks to give a broad introduction to the field through a textbook covering theory, evidence and policy. It also provides deeper insight on topics of current interest on the basis of selected current research papers. The lectures will often draw on recent media clippings of relevance for the topic.

Content: A strong analytical framework now provides a good understanding of Financial Market issues. Nevertheless, research in this area still leaves many questions open for further investigations. This course partly gives participants a review the facts on financial markets, partly presents the key theoretical models, and partly addresses how the models are applied to the important issues.

The final exam tests the students’ specific and general knowledge of the aforementioned aspects of Financial Market theory, emphasizing three abilities:

1. The ability to readily explain and discuss key theoretical concepts and results from academic articles, as well as their interpretation,
2. The ability to carefully derive and analyze results within an advanced, mathematically specified theoretical model,
3. The ability to apply the most relevant theoretical apparatus to analyze a given, new case-based problem.

In order to achieve the maximal grade for the course, the student must excel in all three areas.

Teaching and learning methods: Mostly lectures covering the syllabus with a view towards accomplishing the course goals. Supplemented by problem sets.

Academic qualifications: The course builds mainly on basic Finance, such as may be acquired in the third year course on Corporate Finance and Incentives. We also employ the modelling skills from the bachelor’s courses in Micro.

Language: English
Learning Outcome: Over the last decades there has been an explosive growth in the use of fixed income derivatives. Following this growth derivatives are now commonly used not only in financial institutions but in many private and public entities. At the same time, the widespread use of derivatives is often blamed for playing a role in escalating and prolonging the current financial crisis. Obtaining a thorough understanding of the pricing and risk management of derivatives is therefore more relevant than ever before.

Using the quantitative tools employed in industry, students will learn how to characterize financial risks and how to employ derivatives to mitigate these. As such the course is relevant for students interested in pursuing careers in investment banking, in a public or private treasury operation or within the regulating authorities.

Content: The course will give a thorough understanding of fixed income derivatives, with a focus on how they are used in practice. Fixed income markets, including interest rate swaps, swaptions, caps, floors and credit default swaps, are some of the most actively traded financial markets, and underpin much of the banking system.

The lectures will be quite quantitative in nature, as the main pricing models will be derived and explained in detail. Nonetheless, they will also cover various market standards to ensure that the models are practically applicable. The focus will be on products that are actually traded - how they work, how they are priced and how the risk inherent in them is assessed and hedged - in a framework that is as close to reality as possible.

Next to the lectures, students will spend considerable time building pricing and risk management models using Excel and VBA. By the end of the course, students will have built a small pricing library that is as close to market standards as possible.

Upon completing the course, the excellent student will:

- Understand the mechanics underlying a range of fixed income derivatives
- Know the main terminology used in the industry
- Appreciate the motivations of various market participants behind the use of fixed income derivatives
- Understand and be able to apply the models used to price the most common instruments
- Be able to assess and quantify the risks associated with these instruments, and how these risks can be hedged
- Have implemented pricing and risk analysis models in Excel and VBA resembling those used in practice
As the course is oriented towards the use of derivatives in practice, students are required to demonstrate a thorough understanding of all aspects surrounding derivatives – from the basic legal framework to the practical implementation of pricing models using Excel and VBA – to obtain the grade 12.

**Teaching and learning methods**: Lectures supplemented with computer sessions.

**Academic qualifications**: The course is not intended to be an introductory course. Students are thus assumed to have some prior knowledge of derivatives and financial markets from e.g. “Corporate Finance and Incentives” or “Finansieringsteori / Asset Pricing”.

It is important to stress that an integral part of this course will be programming in VBA. While no prior knowledge of VBA is assumed, students are expected to have some basic programming experience e.g. SAS.

In exchange for a reading list that in terms of pages will be short, students are expected to devote considerable time over the course of the semester to implement pricing functions in VBA/Excel. To facilitate this, lectures will address not only the relevant theory but also include computer sessions that address practical issues.

**Language**: English

**Formal requirements**: None
Learning Outcome: Why do people volunteer and donate to charitable causes? Why do they engage in costly punishment of unfair and anti-social behavior? Why do we often eat unhealthy food, exercise too little, and struggle with completing important tasks in a timely manner? Why do most people think that they are better-than-average drivers, entrepreneurs, lovers, ...? From the perspective of conventional economic theory, these questions are difficult to explain. Behavioral Economics is an attempt to shed light on these and other puzzling phenomena. By enriching the traditional economic model with an empirically more accurate foundation of human behavior, Behavioral Economics aims at improving the predictive power of economic models and the resulting policy recommendations.

In this course, we will discuss the psychological foundations of human behavior and their economic implications. We will present the empirical regularities that have inspired the development of Behavioral Economics, analyze the key theoretical models that have been brought forward, and discuss a number of applications where insights from Behavioral Economics have contributed to a better understanding of individual behavior and market outcomes.

The course will focus on the following topics:
- Reference-Dependent Preferences and Loss Aversion
- Present-Biased Preferences and Limited Self Control
- Limited Cognitive Resources and Attention
- Fairness and Social Preferences
- Behavioral Economics, Market Interactions, and Economic Policy

Content: The primary aim of the course is to introduce students to central theoretical insights and empirical research results in behavioral economics. A broader aim of the course is that students understand how economic theory, lab and field experiments, and other complementary empirical methods can be used to address questions at the intersection of economics and psychology.

After having successfully completed the course, students will be able to understand state-of-the-art research in Behavioral Economics. They will also acquire the necessary knowledge and skills to apply behavioral economic insights to theoretical problems and empirical questions. The course builds on the introductory course “Psychology of Choice” and lays the foundations for subsequent courses in which insights from behavioral economics are applied to different areas of economic research (e.g., Behavioral Finance, Science of Behavior Change, or Behavioral Public Economics). The course also equips the students with the necessary tools and skills to continue working on behavioral economic topics in seminars or Master’s theses.

Teaching and learning methods: 2 hours of lectures per week and 2 hours of exercise classes per second week for 14 weeks.

Academic qualifications: A thorough knowledge of microeconomic theory and econometric techniques are required. In particular, it is required that students have successfully completed the courses in Microeconomics I - III and Econometrics I - III. Ideally, students should also have attended the interdisciplinary course on “The Psychology of Choice”.

Language: English

Formal requirements: None
Learning Outcome: This is a mathematically oriented course of game theory.

The course covers the standard parts of game theory, focusing mainly on non-cooperative games. The course starts with the expected utility theorem. For non-cooperative games, the teaching covers the most important solution concepts for strategic and extensive form games as well as some refinements of those solution concepts (rationalizability, Nash equilibrium, correlated equilibrium, perfect equilibrium, sequential equilibrium). The Aumann model of knowledge is presented. Also, the theory of games under uncertainty is discussed, leading to the extension of the solution concepts previously encountered. Furthermore, we study specific classes of games (supermodular games and global games) that are often used in economic theory. Finally, we illustrate a more axiomatic approach by discussing the basics of social choice theory. If there is time and interest, the implementation problem will be introduced.

We will formally show under which assumptions the covered solution concepts exist and derive certain properties. We will then illustrate and apply the solution concepts in examples and exercises. A detailed lecture schedule will be published on Absalon at the start of the term.

Content: The course aims at giving the students the abilities and competences needed to understand and assess the fundamental aspects of strategic decision making by rational individuals where the framework for decision making specifies the actions open to the individuals as well as their objectives and the information available. The methodological goal of the course is to get students more accustomed to formal notation and proofs. In terms of content, students should be able to determine which of the covered concepts is relevant in a given strategic situation (e.g. a fully specified game). Student should then be able to apply the appropriate (solution) concept in this situation. Students should be able to explain the concepts covered in the course using appropriate definitions and examples.

Teaching and learning methods: Lectures.

Academic qualifications: No graduate course is required; however, mastering the material from Microeconomics III and the Maths courses in the Bachelor program is very helpful.

Language: English

Formal requirements: One written take home assignment must be approved for students to be able to take the exam.
Learning Outcome: The course will give students an introduction to the principles of economic evaluations in healthcare. Topics include:

- Foundations for economic evaluation
- Cost measurement
- Budget impact and cost-of-illness
- Cost-benefit, cost-effectiveness and cost-utility
- Outcome and preference measurement
- Decision modeling
- How to present results and how to handle uncertainty
- Value of information analysis
- Systematic reviews and meta-analyses
- Prioritization in the Danish health care sector

Content: Economic evaluations are increasingly used in decisions on how to allocate scarce resources between competing health care programs, e.g. in decisions to fund pharmaceutical treatments, screening programs or hardware such as MR scanners. In April 2015, the Danish Regions decided to move ahead with including the prices of medicines in decisions regarding usage and prioritization was an important theme of the 2015 general election in Denmark. The course will give students knowledge of the methods used in such evaluations, enabling them to give critical appraisal to already published evaluations and the foundation required to perform their own. Successful completion of the course requires the student to use the acquired skills to evaluate and identify cost-effective treatments of a particular disease by appraising the published literature. These skills will be valuable in a number of different employment situations, including the private health care industry as well as public health care providers and government bodies that regulate and govern this sector.

Teaching and learning methods: 3 hours of lectures per week for 11 weeks. after which students have time to write the exam project.

Language: English
Learning Outcome: Overview of health care systems and peculiarities of the Danish Health Care sector, understanding “health” as an economic concept and empirical insights, health insurance markets and heterogeneity in risk, medical insurance and health care use, health care providers and incentives, and pharmaceutical markets.

Content: The course in Health Economics aims to provide the student with solid knowledge about a wide range of health economic models and applications. The student is presented to health policy, public health economics, peculiarities in markets for health care services, health insurance, and regulation of pharmaceutical markets.

As an applied microeconomics course, the student sees how fundamental issues in often complex health economic problems and dilemmas can be analyzed using the toolbox of the undergraduate level micro courses.

The scope of the course is both theoretical and empirical, and closely related to practical problems in health care production, administration and social insurance. The course therefore provides the student with a good foundation for administrative and analytical positions in various organizations in the health care sector.

At the end of the course, the student will be able to analyze specific health economic issues, from the perspective of an economic model. For successful completion of the course, the student demonstrates a reasonable insight into the underlying economic issues in the health care sector, is able to draw on basic modeling frameworks in analyzing such problems, and presents a discussion of these issues in a fairly clear and organized way and relate it to empirical findings. The very good student demonstrates a deep understanding of the theoretical models presented in the course, and is able to connect, combine or adapt general ideas and concepts to specific health economic problems under consideration.

Teaching and learning methods: Lectures.

Academic qualifications: BA in Economics or similar.

Language: English
6.6.1.2  AØKA08030U History of Economic Thought

**Learning Outcome:** The course gives students an opportunity to familiarize themselves with the development of economic theory from Adam Smith to the 1970s. Obviously, only the major writers and the most controversial issues will be taken into account.

The basic philosophy of this course stems from the selected textbook – that economics is an emerging science, where evolution happens continuously. We see how the major concepts have been suggested, constructed, and further developed.

The textbook will be the frame of the course. It will be read by participating students and discussed at the lectures. This will approx. take up half of the available time. The other half will be spend on participating students writing and presenting papers. These papers will be based on independent research of relevant literature (the expositions can be focusing on writers – i.e. Wicksell – or themes – i.e. the evolution of the idea of external effects). Projects can the written and presented individually or in small groups of participating students, normal seminar rules apply.

An approved project is a condition for standing for the exam.

Notice! This course is not an introduction to economics but reflects upon the development of economic ideas.

**Content:** To provide an overview of economic thinking, to demonstrate how economics has evolved over time, to give students knowledge about historical and theoretical preconditions for contemporary economic theory, and through this help students to a deeper understanding of the power of economics to clarify and solve many kinds of issues and problems.

Qualifications achieved: Participating students should become capable of recognizing and stating the position of basic key economic concepts and reasoning within the history of economics. Students should also become capable of demonstrating knowledge of the major theorists and their main texts in the history of economic thought. It is expected that students achieve the capacity to (1) work with issues in the history of economic thought based on knowledge of basic economic theory, (2) read and digest selected works in the history of economic thought and (3) put historically given economic ideas and theories into a contemporary theoretical context.

Highest marks are obtained for examination papers that demonstrate independent and analytic comprehension, without essential errors, of selected problems in economic theory including a discussion of the theories' positions in the academic food chain. In addition, papers with the highest marks must demonstrate a capacity to draft and present key problems in the history of economic thought in a clear manner.

**Teaching and learning methods:** Lectures, discussions, paper writing and presenting.
**Academic qualifications:** General knowledge about economic theory equivalent to Microeconomics B and Macroeconomics B in the Bachelor’s programme is required. This is necessary in order to be able to participate in and understand the course’s discussion of economic thinkers' ideas and texts.

**Language:** English

**Formal requirements:** It is a condition for standing for the exam that a paper has been presented and accepted.
Learning Outcome: The course work aims to give the students basic IT-knowledge on the background of tasks related to both public and business organizations where ICT play a strategic role. Cornerstones are efficient database handling and efficient data processing in spreadsheets.

In the course we practice development of various software applications on the computer as well as providing a general system understanding that will facilitate communication with IT-specialists. E.g. the student should be capable of developing smaller applications for spreadsheets, and also for instance be able to provide a clear specification for an IT-specialist to develop a database based web application.

Among the course subjects are:

- Creating macros and functions in spreadsheets and in this way improving efficiency and reducing errors (for example programming macros for Excel).
- Design and use of Graphical User Interfaces (GUI). GUI permeates most personal computer and web applications today and knowledge about the idea and approaches to designing and using is essential in present-day IT.
- Use and solution integration of databases (for example extracting stock data to aggregate statistics)
- Client and server based web technologies (example: through the web providing the customer with database information such as it is done by web banking and public sector tax information)
- Communication technologies
- Definition of business scopes and specification of system requirements
- Algorithmic solutions are based on VBA (Visual Basic for Applications), primarily connected to enhancing and customizing Excel with macros and functions. Database queries are defined using SQL. Various tools, such as HTML, Scripts, c#, XML for web-site design are studied, including Expression Web. Hands-on guidance will be provided as needed during the course.

The selected tools can be used on the student’s own computer, or on computers in the student user rooms.

Content: The objective of the ICT-Applied course is to provide students with a broad knowledge of Information and Communications Technology, as it relates to working as an economist, and to an understanding of today’s business processes and strategy. This will enhance the student’s job opportunities in both the public and the private sector.

The specific objectives, i.e. the learning outcomes, are that by the end of the course all students will be able to:

- Explain the correlation between spreadsheets, programming languages, application generators and databases
- Record and edit macros in spreadsheets like Excel
- Write tailored software for spreadsheets in a proper programming language
- Design, develop and test Windows applications based on simple algorithms
- Explain the principles of relational databases
- Use SQL for complex database queries with logical expressions and subqueries
- Explain the principles behind Object Oriented Programming
- Explain the basic technologies behind the World Wide Web
- Plan, design, create and implement a Web site
- Explain where the studied technologies are positioned in the general system development process

**Teaching and learning methods:** Lectures. The teaching comprises lectures, hands-on guidance, assignments and tasks. Normally assignments and tasks can be solved using the student’s own pc, provided Windows and Office are installed. The utilized web-development software is provided for installation on the student’s computer.

**Academic qualifications:** None, or elementary knowledge of information technology and computer use. Because of content overlap students who have taken any of the courses Datamatik 1 or Datamatik 2 cannot participate in the course.

**Language:** English

**Please note:** This course is mainly for foreign students. Danish students are not allowed to register for the course in the ordinary registration period. If there are free spots on the course it will be possible for all students to register in the late registration period.
6.6.1.4  AØKA08020U Industrial Organization

Learning Outcome: The course covers the basic theory of industrial organization. In particular, the following areas are treated:

- Monopoly
- Price Discrimination
- Vertical Control
- Short run price competition and Cournot oligopoly
- Dynamic price competition and tacit collusion, cartels
- Empirical tests of oligopoly
- Product differentiation
- Entry and Exit Decisions
- Limit pricing and predation

Content: This course is an introduction to modern industrial organization based on game-theoretic analysis. Industrial organization concerns how markets work and firms compete, especially when there are a limited number of firms in the market. The goal of the course is that the students after having successfully participated in the course are able to:

- Describe the main theories of monopoly behavior and of oligopoly competition and to compare them in terms of central features such as prices and welfare.
- Describe the different kinds of price discrimination, the ways in which price discrimination can be implemented, and how price discrimination affects the different economic agents involved.
- Describe how vertical restraints work and what their effects are in terms of profits and welfare.
- Describe the main theories of collusion and to identify factors that hinder and facilitate collusion.
- Describe the main theories of entry, accommodation, and exit and to relate them to firms’ business strategies.
- Solve formal models using tools from mathematical optimization theory and game theory.
- Analyze formal models that are variations of the models and theories covered in the course and to provide economic intuition for the results obtained.

Teaching and learning methods: Lectures and classes
**Academic qualifications:** Competencies and knowledge from participating in Micro 1-2-3 (Micro A, B, C) or equivalent.

**Language:** English
Learning Outcome: The course studies causes and consequences of international trade. We seek to answer questions such as: Why do countries trade? What do they trade? Who gains and who loses from trade? What is the impact of trade policy on welfare? The course also considers aspects of the globalisation debate: Is wage inequality affected? What are the implications of multinationals and outsourcing? Within the topic of international monetary economics the course covers theories of optimum currency areas.

Content: The purpose of the course is to give an introduction to traditional and new trade theories and selected topics in international monetary economics. The aim is that the students, after participating in the course International Economics, will be able to:

- understand and describe why international trade arise
- understand and describe trade patterns under perfect and imperfect competition
- understand and describe the extent to which there are welfare gains from trade
- analyse and calculate how trade affects behaviour of firms and consumers and how trade affects welfare
- analyse and calculate how trade policy affects firm behaviour and analyse and calculate welfare implications of trade policy
- understand and describe aspects of the globalisation debate such as the impact of globalisation on wage inequality, the role of multinational corporations, and labour market consequences of outsourcing
- understand and describe the theory of optimum currency areas
- describe and analyse in a clear and correct written language

Students who achieve all these goals will be given the top grade.

Teaching and learning methods: Lectures

Academic qualifications: Basic micro- and macro theory of the first two years. Knowledge of basic Ordinary Least Squares (OLS) regression and either SAS or Stata software packages is also required.

Language: English

Formal requirements: Students have to write a short term paper in order to sit the exam.
Content: This is a graduate level course in international macroeconomics. Topics covered include:

- International business cycles: Measurement and empirical facts
- Benchmark international macro models: Small open economy and two-country international real business cycle model
- Uncertainty and international financial markets, including international risk sharing, portfolio diversification,
- Home bias puzzles
- International capital flows and global imbalances
- Imperfections in international capital markets: Empirics and theories of sovereign debt and default, sudden stops and self-fulfilling crises
- Nominal rigidities and exchange rate policy in open economies
- Selected recent papers in international macro

Throughout the course there will be a focus on applied work - students will learn how to work with the data and solve numerically the models we discuss. We will use Matlab and Stata for this but no prior knowledge of these packages is assumed.

Learning Outcome: The goal of the course is to provide students with a thorough understanding of the main theories and empirical research in international macroeconomics. By the end of the course they should be able to

- Describe international business cycle facts
- Describe and analyze core international macro models (small open economy and international real business cycle model)
- Describe, analyze and critically reflect on key concepts and applications including risk sharing, portfolio diversification, international capital flows and capital market imperfections, based on the core models
- They should have acquired the tools necessary to be able to read the latest theoretical and empirical research in the field, and to start using and applying the theories and concepts independently.

Schedule: Lectures

Academic qualifications: BSc in Economics. It is strongly recommended that Micro III and Macro III has been followed prior to taking "International Macroeconomics".
Learning Outcome: The course covers the following topics:

- Labor supply and demand
- Education and human capital
- Wage formation
- Local labor markets
- Job search, unemployment and job reallocation
- Bargaining and minimum wages
- Active labor market policies
- Flexicurity and employment protection

Content: The course in labor economics is supposed to enable students to read and understand current and previous research in labor economics, discuss policy proposals from the perspective labor economics and reflect critically on new theories and empirical evidence.

To meet the above aims, at the end of the course the students are expected to learn to describe the following concepts/theories as well as apply them in the analysis of concrete empirical phenomena and policy proposals:

- The neoclassical theory of labor supply both in a static and dynamic setting
- The neoclassical theory of labor demand
- General and specific human capital
- Different types of wage determination, including bargaining, compensating differentials and contract theory
- Local labor markets
- Search and matching models of the labor market
- Labor market policies such as unemployment benefits, active labor market policies and employment protection

Teaching and learning methods: Lectures

Academic qualifications: Bachelor degree in Economics.

Language: English
Formal requirements: None
6.6.1.10 AØKA08189U Lineære modeller (in Danish only)

**Learning Outcome:** Faget Lineær Modeller omfatter følgende centrale emner:

- Lineær uafhængighed, basis og dimension af underrum.
- Lineære afbildninger.
- Komplekse tal.
- Komplekse matricer.
- Diagonalisering af matricer.
- Abstrakte vektorrum.
- Funktionskalkulen.
- Metriske rum.
- Konvergens af funktionsfølger.
- Banachrum og Hilbertrum.
- Svag og stærk konvergens.

**Content:** Faget Lineær Modeller omfatter følgende centrale emner:

- Lineær uafhængighed, basis og dimension af underrum.
- Lineære afbildninger.
- Komplekse tal.
- Komplekse matricer.
- Diagonalisering af matricer.
- Abstrakte vektorrum.
- Funktionskalkulen.
- Metriske rum.
- Konvergens af funktionsfølger.
- Banachrum og Hilbertrum.
- Svag og stærk konvergens.
Teaching and learning methods: Forelæsninger og regneøvelser

Academic qualifications: De studerende forventes at have faglige forudsætninger svarende til Matematik A og Matematik B.

Language: Dansk

Formal requirements: Der indgår en række obligatoriske opgaver og/eller prøver i faget. For at kunne indstille sig til eksamen, skal man opfylde de krav til godkendelse af opgaver og prøver, som står beskrevet i kursusbeskrivelsen på www.kurser.ku.dk for faget i det pågældende semester.
Learning Outcome: Financial and non-financial data are a very important basis for evaluation of profits of different segments as well as evaluating and managing the efficiency of departments, people and processes in the organization. But it is also important as a basis for pricing decisions and planning purposes. The course put focus on how to capture financial and non-financial data as well as organize and use them for decision making and control.

The course contains the following core elements:

- Job costing systems & process-costing systems
- Revenue and Cost terms and behavior
- Profitability analysis
- Pricing decisions and target costing
- Capital Investment decisions
- Budgetary systems
- Performance measurement and management
- Control systems and transfer pricing

Content: This course offer the students the opportunity to develop a fundamental knowledge of financial management of a company. The focus is on how to design, implement and use different conventional as well as modern managerial and cost accounting models, techniques and systems for analysis, decision making and control purposes.

The overall goal is that the students should be able to:

- Understand the purpose and content of different management accounting models, techniques and systems
- Be able to apply and use them for different analysis, decision making and control tasks in different companys
- Analyse and evaluate the strengths and weaknesses of each model, technique and system used for different tasks

Teaching and learning methods: Lectures. Research and theory based dialog lectures are mixed with exercises and cases. The lectures provide the students with the necessary understanding of purpose and content of the techniques and what type of theory they are based on. Through the use of examples and cases from practice the students learn to apply theory and techniques for analysis, decision making and control purposes in practice.
**Academic qualifications:** The course requires knowledge of micro economics as included in Micro A and Micro B.

**Language:** English

**Formal requirements:** None
Learning Outcome: The course gives the student deep insight, knowledge and understanding of the background for the modern marketing discipline and marketing planning based on the mission of continuously generating customer value and fulfilling customer needs better than competitors.

During the course the different main markets will be analyzed and conceptualized, we will go into customer analysis and the components in competitor analysis. Analyzing the macro environment will be the last step before setting up a SWOT analysis. Based on the situation analysis the student will get a structured knowledge of criteria for segmenting the market, selecting target groups and choosing strategies for positioning the product offer. Setting up different kind of objectives for the marketing activity is the important step before strategies for the different basic elements in the marketing-mix, product, price, place and promotion will be discussed. And the course will end up with different techniques and tools for monitoring and evaluating the results of a marketing campaign.

Content: To make the student familiar with the modern marketing “mind set” and the basic marketing concepts, mechanisms and instruments (the marketing-mix) that is necessary to manage and plan for the marketing driven company or organization. The fundamental outlook is the evolution from push to more pull based marketing strategies as a consequence of the increasing digital network society with more fragmented, interactive and involving customers.

The student will get knowledge, insight and tools to be prepared to do a comprehensive and beneficial analysis of the business environments for a specific company or organization, leading to the development and argumentation of a marketing strategy and plan including evaluation of the effects and critical reflections on the return of marketing investment (ROMI).

Teaching and learning methods: Lectures

Academic qualifications: None

Language: English

Formal requirements: A compulsive report on max. 8 pages covering a situation analysis and marketing strategy for an individual selected product/service/event, must be passed.
Learning Outcome: Usually economists are interested in how individuals and organizations behave within their environment. For example, we ask how many hours an individual will work if he faces a certain tax system (the tax system and his employment possibilities are then the environment) or we ask how many units a firm will produce given the market environment (i.e. given the number of competitors, the mode of competition and the demand). Mechanism design goes one step further and asks: What kind of environment should a "designer" create if he wants to achieve a certain goal. For example, mechanism design asks: How should a government that is concerned about its citizens welfare design the tax schedule?

In the second example, mechanism design could answer the question: How should a welfare maximizing planner organize a market?

Mechanism design is, therefore, an approach that can be used and has been used in many subfields of economics. You can find a more thorough description of mechanism design on: http://www.tseconomist.com/1/post/2013/01/mechanism-design-theory-takuro-yamashita.html

This course consists of three parts.

The first part (based on chapter 23 in MasColell/Whinston/Greene) introduces the students to the classic results and methods of mechanism design. After some introductory examples, dominant strategy mechanism design is treated: This covers the revelation mechanism and continues with the Gibbard-Satterthwaite theorem and the Groves-Clarke mechanism. We show that the designer can only achieve his objectives with the Groves-Clarke mechanism if he is willing to pay/receive own money to/from the players. As this is not always realistic, we turn from dominant strategy to Bayesian mechanism design to see whether we can get around this problem of "budget balance". The expected externality mechanism gives a positive answer to this question if players can be forced to participate in the mechanism.

We talk about some technical questions concerning incentive compatibility and use these new tools to establish the famous Myerson-Satterthwaite theorem which says that fully efficient trade cannot be achieved by any mechanism if players can opt not to participate. This naturally leads to the question which mechanism is most efficient. We study this question of optimal Bayesian mechanisms in several settings including bargaining, pricing, regulation and auctions.

The second part applies and extends the concepts of the first part. The material is based mainly on published papers and small excerpts from other textbooks. We apply the standard model to market design in order to answer questions about innovation. Also the optimal design of an income tax scheme is discussed. We analyze how optimal mechanisms are affected if the setup differs from the classical mechanism design setup. Some of the following deviations from the standard setup are considered: Agents exert externalities on each other (e.g. if Pakistan sells nuclear weapons to North Korea, US security is affected), agents' information is correlated (e.g. if a government sells drilling rights either all companies will value the right highly if there is a lot of oil and not so highly if there is none), agents' information is multi-dimensional (e.g. buyers value design as well as functionality), agents can search for more information before signing a contract.
The third part deals with recent, applied work of economists on so called matching markets. The classic Gale-Shapley algorithm is introduced. We then use this tool (and some related tools like the top cycle algorithm) to think about the design of the following markets: Matching students to schools/universities and organizing kidney donations. If there is time, we might cover another market like the market for physicians or power markets.

Students are expected to do some assigned reading and smaller exercises between classes.

**Content:** At the end of this course, students can apply the classical tools of mechanism design. Students can explain the advantages and disadvantages of dominant vs. Bayesian mechanism design and the limitations to both approaches. Students understand the logic behind the revelation principle, the Clarke-Groves mechanism, the expected externality mechanism, the envelope theorem and monotonicity condition as well as the Myerson-Satterthwaite theorem. Students can derive optimal Bayesian mechanisms in well behaved settings and apply matching algorithms to fully specified problems. Very good students can analyze a given matching mechanism, find and illustrate its weaknesses and suggest alternatives based on mechanisms treated in the course. Students can read, summarize, compare and comment on research papers that use the techniques covered in the course.

**Teaching and learning methods:** Lectures

**Academic qualifications:** Active knowledge of the material in Microeconomics C and the compulsory Math courses of the Bachelor is required. It is not required but helpful to take (or to have taken) one or more related courses like “Contract Theory and the Economics of Organization”, “Auctions” and “Game Theory”.

**Language:** English

**Formal requirements:** In order to be allowed to take the exam, students have to pass a midterm assignment which is also a one week take home assignment.
Learning Outcome: Naturressourcer og miljøtjenester som grundlag for al menneskelig aktivitet.
Naturressourcer i økonomisk teori.

Miljøets betydning for det økonomiske system: Ressourcer til rådighed, nedbrydningstjenester, og direkte påvirkning af velfærd og levevilkår.

Modellering af samspillet mellem økonomi og natur.
Præcisering af begrebet bæredygtig udvikling og måling af bæredygtighed.
Forklaringer på og konsekvenser af forurening. Markedsfejl og politik/reguleringsfejl.
Behovet for miljøregulering og valget mellem forskellige reguleringsmetoder såsom miljøskatter, kvantitativ regulering, omsættelige forureningsskatter m.v.
Betydningen af ufuldkommen og asymmetrisk information for kontrolmuligheder og håndhævelse af miljøregulering.
Værdisætning af miljøgoder. Teori og praktisk anvendelse i en dansk sammenhæng.
Miljøskatter og samspillet med det øvrige skattesystem.
Grøn skattereform: Er der en dobbelt dividende?
Økonomisk teori om udtræmmelige og fornybare naturressourcer.
Knaphed på udtræmmelige naturressourcer (olie, kul. metaller m.v.): Hvordan opgøres den?
Forskellige markedsformers betydning for udnyttelsen af naturgivne ressourcer.
Klimapolitik som et internationalt offentligt gode.
Optimal udnyttelse af fossile brændsler i lyset af drivhuseffekten.
Politik mod global opvarmning.
Dansk og europæisk klimapolitik.
Miljøøkonomi og etik. Hensyntagen til fremtidige generationer.

I undervisningen vil indgå gæsteforelæsninger af danske eksperter, der vil give eksempler på anvendelser af de gennemgåede teorier på konkrete danske miljø- og klimapolitiske problemstillinger.

Content: Faget har som overordnet formål at introducere de studerende til fagområderne miljø-, ressource- og klimaøkonomi. Efter at have fulgt kurset kan de studerende redegøre for grundlæggende økonomiske begreber og problemstillinger i relation til miljø-,ressource- og klimaproblemer og anvende relevante teorier og analyseredskaber fra mikro- og makroteorien på miljø-, ressource-og klimaspørgsmål.

Kurset skal sætte de studerende i stand til at

- forklare og fremlægge centrale dele af miljø-, ressource- og klimaøkonomiske modeller og teorier og at dokumentere evne til at kritisere, nuancere og relatere dem til hinanden,
- præsentere og vurdere eksisterende reguleringsteori og diskutere balancen mellem det offentliges og markedsøkonomiens rolle i implementeringen af mål i miljø- og klimapolitikken,
formidle teori og empiri om miljø-, ressource- og klimaøkonomiske problemstillinger i et klart og korrekt sprog og demonstrere evne til at benytte den i faget indlærte teoretiske og empiriske indsigt på en kompetent og selvstændig måde i relation til virkelighedsnære miljø-, ressource- og klimaøkonomiske udfordringer.

**Teaching and learning methods:** Forelæsninger

**Academic qualifications:** Økonomiske fag svarende til bacheloruddannelses i økonomi.

**Language:** Dansk

**Formal requirements:** Ingen
AØKA08221U Monetary Policy (F) (former Monetary Economics: Macro Aspects)

Content: The aim of this macroeconomic course is to offer an understanding of several aspects of money and the macro economy, thereby providing insights into how and why monetary phenomena and policy affect important macroeconomic aggregates such as output, consumption, inflation and unemployment. Moreover, focus will be on the characteristics of “good” monetary policymaking in the sense of assessing the advantages and disadvantages of various monetary policy strategies.

To secure a firm foundation for the aspects covered, emphasis will be on rigorously formulated theoretical models. Economic intuition, however, is just as important as mathematical formalism. Although the curriculum will be mainly theoretical, the empirical relevance of the material will not be underplayed.

Particular subjects to be covered include:
- Empirics on monetary aggregates and the macroeconomy
- Money’s role in flexible-price general equilibrium models
- Money’s role with incomplete nominal adjustment
- Monetary policy, fiscal policy and debt
- Inflation targeting
- Stabilization policies and credibility
- Credit frictions and the macroeconomy

Learning Outcome: In this course, students are trained to use formal macroeconomic theory to assess real-life monetary policy issues as well as being able to understand modern research papers in the area. The course is based on lectures, but will also include classes where the lecturer and students together solve various problems.

In order to follow this course, students must be familiar with advanced macroeconomic theory. Hence, basic intertemporal optimization techniques (as used in, for example, Ramsey growth models), and analyses of static and dynamic systems with rational expectations should be known. Students should therefore not be afraid of mathematical rigor.

Notably, students are expected to be able to move beyond the mere mechanics of the theories and be capable of presenting formal results in economic and intuitive terms. This provides the students with valuable skills for later employment in both public and private institutions with financial and macroeconomic focus.

The evaluation is based on a three-hour closed-book written exam, where students will be tested in their skills in mathematical derivation of central results in the macroeconomics of monetary theory as well as in their capabilities of explaining results in plain words. Hence, in order to pass the course with the highest grade, the students must demonstrate both knowledge about the mathematical details of various models covered in the course, as well as showing a solid understanding of the economic mechanisms that are described by the mathematical results.

Teaching and learning methods: 2 hours of lectures one to two times per week for 14 weeks.

Academic qualifications: As some of the material requires a thorough understanding of macroeconomic general equilibrium models, it is a prerequisite to master economic theory at a level corresponding to David Romer: Advanced Macroeconomics, McGraw-Hill (currently used in Macroeconomics III. In particular, the chapter on the Ramsey model should be known. One should therefore be familiar with basic intertemporal optimization, and analyses of static and dynamic systems with rational expectations.
Most importantly, one should not be afraid of mathematical rigor. At the end of the day it merely serves to create conclusions and policy implications that are internally consistent. Not a bad starting point for organizing your thoughts. And remember that it’s the economics which is the important stuff; the math is just a helpful tool!

**Language:** English

**Academic qualifications:** None

Som en introduktion gives en kort repetition af de vigtigste matrixoperationer, herunder dekomponering i egenværdier og egenvektorer, herunder også brug af SAS. Herefter gennemgås i første halvdel af kurset de grundlæggende modeller for multivariat analyse: Faktoranalyse, herunder principlkomponentmetoden, og LISREL-modeller (Struktural Equation Modelling). I disse modeller indgår de variable på lige fod og ikke i form af responsvariable og forklarende variable som i regressionsmodeller.

For diskrete variable analyseres i kursets anden halvdel større datasæt med flere kategoriserede variable, der ligeledes indgår simultant på lige fod i modellen. Det skal ses som en modsætning til fx logistiske regressionsmodeller, hvori visse variable er responsvariable (altså specielt interessante), mens andre er forklarende variable.

Som en introduktion til modellerne for sådanne kategoriserede variable tales om likelihoodteori og eksponentielle familier, der anvendes for de log-lineære modeller, der anvendes i analyserne. Alle de praktiske analyser i kurset afvikles ved brug af SAS

Content: Faget giver kompetencer til at:

- evne til at læse simplere videnskabelig litteratur om teorien for disse emner
- evne til at læse videnskabelig litteratur, der anvender modeller for disse datatyper
- erhverve et tilstrækkeligt kendskab til den praktiske analyse ved hjælp af modellerne, så den studerende efter kurset kan samarbejde med andre faggrupper, herunder statistikere, om udarbejdelsen modeller for data
- evne til selv at analysere data ved hjælp af modellerne
- evne til at relatere resultaterne til den virkelighed data stammer fra.

For at erhverve en topkarakter skal den studerende formå fejlfrit at:

- kunne udføre analyser på data af disse typer, hvor mest muligt af informationen i data bringes frem i lyset
• fortolke disse resultater i forhold til emnefeltet
• beskrive fremgangsmåden klart og tydeligt
• dokumentere kendskab til teorien bag de anvendte redskaber

For at kunne bestå skal den studerende som minimum:
• kunne gennemføre analyser af denne type på data af relevans for økonomers arbejdsfelt uden væsentlige fejl
• kunne relatere nogle af analysernes resultater til den virkelige verden

**Teaching and learning methods:** Forelæsninger. Forelæsningerne gør hyppig brug af online gennemgang af SAS-programmer og desuden gennemføres opgaveregning, herunder også praktisk dataanalyse med SAS, som en del af forelæsningerne.

**Academic qualifications:** Kurset forudsætter viden svarende til kurserne Økonometri A og B herunder det kendskab til programpakken SAS, der opnås ved disse kurser.

**Language:** Dansk

**Formal requirements:** Der indgår en række obligatoriske opgaver og/eller prøver i faget. For at kunne indstille sig til eksamen, skal man opfylde de krav til godkendelse af opgaver og prøver, som står beskrevet i kursusbeskrivelsen på www.kurser.ku.dk for faget i det pågældende semester.
**Learning Outcome:** Offentlig udgiftspolitik gennemgår økonomisk og økonomisk-politisk teori og empiri for indretningen af den offentlige sektors økonomi. Målet er at give de studerende redskaber til at kunne analysere generelle normative og deskriptive spørgsmål inden for offentlig økonomi, herunder danske forhold.

Faget dækker både normativ og deskriptiv offentlig udgiftspolitik. Faget præsenterer teori for de to primære udgiftsområder offentlige goder og velfærdsstater, herunder med fokus på særlige offentlige programmer som uddannelse og pensioner. Herudover gennemgås problemstillinger vedrørende indretningen af den offentlige sektor, herunder incitamentsstrukturer i den offentlige sektor, samt diskussioner om offentlig vs. privat ejerskab.

**Content:** Efter gennemførelsen af kurset skal de studerende kunne redegøre for

- teorien for offentlige goder
- teorien bag social forsikring
- Normativ og deskriptiv teori for overførselsprogrammer
- offentlig politik mht. pensioner og uddannelse
- teorien for offentlig tilvejebringelse af private goder
- adfærdsøkonomisk teori og velfærdssten
- Organisations- og incitamentsproblemer i den offentlige sektor
- problemstillinger vedrørende offentligt vs. privat ejerskab
- indledende problemstillinger vedrørende privatisering og regulering

For at opnå højeste karakter skal de studerende på overbevisende vis kunne: 1) anvende metoder og resultater fra de ovenstående emneområder til at belyse disse og nærtbeslægtede emner inden for offentlig udgiftspolitik; 2) diskutere antagelser og analysemetoder i samme; samt (3) placere og diskutere emnerne i en dansk og international praktisk og empirisk kontekst svarende til hvad der er gennemgået til undervisningen.

**Teaching and learning methods:** Forelæsninger

**Academic qualifications:** Faget bygger videre på gennemgangen af offentlig udgiftspolitik i valgfaget Public Finance, hvorfor det er en fordel (men ikke en forudsætning) at have fulgt dette fag. Vi vil desuden anvende metoder fra mikro-, makro- og økonometrifagene på 2. og 3. årsprøve. En god beherskelse af stoffet fra disse fag er derfor en stor fordel.
Language: Dansk

Formal requirements: Ingen
Learning Outcome: The course focuses on work organizations: Business organizations (private firms) and organizations within the public sector, for example public administration, public hospitals, educational and social institutions. A number of basic theories are presented such as Classical Organization Theory, Human Relations, Human Resources and recent theories about structure, processes and culture in organizations. Strengths and weaknesses of the theories are discussed among other things based on empirical research. Organization theory is an interdisciplinary field and the course draws on perspectives from different social science disciplines. A central theme is organizational structure, in other words, how work in an organization is divided into jobs, departments and hierarchical levels and how coordinated effort is achieved. A number of structural forms are discussed such as the simple structure, machine bureaucracy, professional bureaucracy, adhocracy and the divisional form. It is discussed how in particular organizational strategy, size, technology and environment influence the structure of an organization. Both so-called rational and natural theories are discussed. A special theme concerns the choice between market and hierarchy in coordination of economic activity. This leads to a discussion of mergers and acquisitions, outsourcing, virtual organization and hybrids between market and hierarchy such as strategic alliances and networks. Informal structure and group dynamics are also touched upon together with organizational culture comprising the values and basic assumptions of organizational members. The influence of informal structure and culture on the performance of the organization is discussed. Other themes concern organizational processes where decisions, power, leadership, learning and motivation are the most important. Both rational, bounded rational, political and anarchic decision models are presented and power processes in organizations are discussed. Perspectives on leadership are outlined and managerial activities, leadership behavior and styles, value based leadership and contingency theories on leadership and change management are focused upon. Motivation and incentives in organizations are also essential themes where the relative significance of economic and non-economic motivations in particular is discussed. Both classical motivation theories and later content and process theories are part of the course as are the concept and function of performance related pay. The organizational world today is characterized by many and profound changes. These changes in organizational forms caused by new technology, globalization, increased competition and new ideas about management imply more flexible organizations, new managerial strategies and new ways of defining, monitoring and assessing the performance of the organization. The course will highlight important changes and their causes. Finally the course will differentiate between the (voluminous) management literature and organization theory as a scientific discipline and explanations of fads and fashions in the managerial world. In essence, a number of ways of thinking are presented in the course which should enable the economist to think and reflect in a more professional way about the organizational contexts in which she/he will make a career. Organization theory has broad practical and vocational relevance in particular for students aspiring to managerial and administrative positions.

Content: The aims are that the student after participation in the course is able to:

- Describe basic principles of the following theories: Classical Organization Theory, Human Relations, Human Resources, Contingency Theory, Institutional Theory, Resource Dependence Theory, Population
• Describe theories about: Strategy, structure, network, culture, leadership, groups, change, communication, power, decisions, motivation and learning.

• Analyze and compare the theories, their strengths and weaknesses with regard to obtaining an understanding of concrete organizations and organizational phenomena.

• Analyze the relevance of the theories, their strengths and weaknesses from the point of view of practical action and management of tasks and problems in organizations.

• Select, justify and apply relevant theory in analysis of organizational issues or themes described in a concrete case; and present analysis and proposed solution in a written essay in a grammatically correct, clear and coherent way.

• Describe differences and similarities between economic perspectives on organizations and perspectives from other social science disciplines.

• Describe the difference between Organization Theory as a scientific discipline and management literature.

Teaching and learning methods: Lectures

Academic qualifications: None. Organization theory has interfaces with other areas such as public administration, strategic management and corporate governance.

Language: English
Content: Why do firms and other types of organizations exist? Which factors determine whether they succeed in achieving efficient levels of cooperation and coordination amongst their members? How does individual behavior and organizational performance depend on compensation structures and the allocation of tasks and authority within an organization? How do coworker relationships, employees’ work morale, and the perceived fairness of one’s pay influence workplace behavior?

During the past decades, research in economics has made great progress in answering such questions by opening the “black box” of what happens within firms and other organizations. In this course, students will be introduced to the key theoretical concepts and empirical approaches that help understand the existence, design, and performance of organizations. After discussing a number of classical studies on the foundations and boundaries of firms, the main part of the course will focus on the question how economic methods can be used to understand incentives and behavior in organizations. In particular, we will discuss how compensation structures and other organizational features (e.g., hierarchies, teams, authority, and delegation) affect individual motivation and performance.

Learning Outcome: The primary aim of the course is to introduce students to central theoretical insights and empirical research results in organizational economics. A broader aim of the course is that students understand how economic theory, “insider econometrics”, lab and field experiments, and other complementary empirical methods can be used to address applied microeconomic questions.

After having successfully completed the course, the students will be able to understand state-of-the-art research in organizational and personnel economics. They will also acquire the necessary knowledge and skills to apply these insights to practical problems in organizational design and human resource management.

Teaching and learning methods: Lectures with practice sessions included where the students will present and discuss original research articles.

Academic qualifications: Bachelor degree in Economics. Although it is strongly recommended that students have successfully completed the full course sequences in microeconomics and econometrics, in exceptional cases the course can also be attended in parallel to Micro III (Micro C) at the first semester of the Master programme.
Learning Outcome: The course provides a broad overview of modern political economics. It deals with the interaction of politics and economics, using formal game-theoretic models to understand the implications for economic policy of various political settings and institutions. The course relates the theoretical predictions to real world examples and systematic empirical finding.

Content: In the process of the course the student shall acquire the knowledge about the basic and more advanced theoretical models of different aspects of political-economic process as well as ways and results of empirical assessment of these models. Specifically, the student shall acquire knowledge about the tools of modeling and empirical results on:

- Electoral competition and voter behavior
- Partisan politics and political agency
- Redistributive aspects of politics
- Dynamic policy problems such as politics of public debt and political budget cycles
- Impact of different political institutions on economic policy
- Sources of differences in political preferences
- Politics and the media

To obtain the highest grade, the students should, in a convincing way, be able to: 1) apply methods and results from the list of topics above to analyze variations and extensions on these and closely related topics within political economics; 2) discuss assumptions and methods of same; and (3) place and discuss the topics within both a Danish and international practical and empirical context at the level corresponding to that presented in class.

Teaching and learning methods: Lectures

Academic qualifications: Public Finance introduces some topics, but is not a prerequisite. Some familiarity with game theory is required.

Language: English
6.6.1.21 AØKA08208U Praktisk tidsrækkeanalyse (in Danish only)

Learning Outcome: 1) Håndtering af tidsrækker i SAS ved brug af datovariable, aggregering og interpolation.

2) Forudsigelser ved hjælp af exponential smoothing og tilsvarende metoder

3) Sæsonkorrektion

4) Intuitive tidsrækkemodeller ved hjælp Unobserved Components

I kurset læres, hvorledes disse analyser foretages ved hjælp af SAS.

Content: Faget giver kompetencer til at:

- Kunne forudsige tidsrækker uden og med sæsonsstruktur ved hjælp af eksponentiel udglatning.
- At kunne sæsonkorrigere en tidsrække med månedstal eller kvartalstal. At vurdere en tidsrækkes struktur ved hjælp modeller for uobserverede komponenter.
- At kunne analysere disse modeller samt håndtere tidsrækkedata i almindelighed ved hjælp af SAS.


Academic qualifications: Kurset forudsætter viden svarende til bestået 1. årsprøve.

Language: Dansk
Learning Outcome: The course will cover valuation of financial assets and derivatives with an emphasis on arbitrage pricing and hedging. Elementary finance as in Corporate Finance and Incentives, BSc, 3rd year must also be covered.

Content: The students will acquire an understanding of core areas of modern financial theory and the ability to apply different models of this field to problems of both theoretical and practical interest.

At the end of the course the student should also be familiar with main types of financial assets and derivatives, their risk characteristics and be able to discuss and apply relevant methods for pricing and hedging.

Students are also expected to obtain an understanding of the mathematical methods related to these models including selected proofs and numerical methods.

The excellent performance is characterized by a good knowledge of the theories, methods, models and proofs covered in the course together with the ability to apply these competencies to theoretical and practical problems more generally than the examples covered in the syllabus, utilizing both discrete time models and continuous time models.

Teaching and learning methods: Lectures

Academic qualifications: The course requires certain knowledge of basic microeconomics and elementary mathematics and statistics. The course also requires the BA-course in finance (Corporate Finance and Incentives).

Language: English

Formal requirements: None
Learning Outcome: The course is a joint University of Copenhagen Department of Economics/Faculty of Law graduate course introducing students to key aspects of private equity. The course is designed to be of interest to students of law, economics, finance and public policy, emphasizing the interrelationships between academic disciplines within this field.

Content: To obtain a 12 grade students should demonstrate a thorough understanding of micro and/or macro aspects of private equity in broad terms and/or a thorough understanding of a particular topic within the overall framework of the course.

On a macro level, students should demonstrate a thorough understanding of industry drivers, such as the growth in savings deployable, the effects of corporate governance and regulation on the attractiveness of private versus public capital as well public policy issues such as transparency, any systemic risks associated with financial innovation and in particular the trading and transfer of risks and taxation.

On a micro level, students should demonstrate a thorough understanding of the structures and workings of venture capital and private equity firms, in particular on the screening, investment, value creating and exit cycle, on capital structure issues as related to the stage and risk profile of portfolio companies, on the control and agency issues related to governance as well as of the contracts used to regulate principal/agent relations and to ensure alignment of interest, both in relation to limited partners and general partners and in relation to portfolio companies.

As this is a multi disciplinary course, students may select a topic of their own choosing within law, economics, finance and public policy for their project work. Students may choose to submit a paper with a more narrow focus than described above and achieve a 12 grade based on a thorough understanding of the subject matter in question and an overall understanding of the course material.

Teaching and learning methods: Lectures

Academic qualifications: Formal training at a bachelor and/or master level and practical experience in finance, business strategy, corporate governance and contract law would be helpful. Students should have en interest in financial markets, management, innovation, regulation and contracts seen mainly from a practical perspective. Basic theories and concepts from finance and law will be introduced during the course to facilitate learning for students of economics and finance as well as for law students.

Language: English

Formal requirements: None
**6.6.1.24 AØKA08186U Programmering og statistik med SAS (in Danish only)**

**Learning Outcome:** I kurset gennemgås konvertering af datasæt med andre formater til SAS herunder håndtering af formatbiblioteker.


**Content:** I kurset behandles mange forskellige emner indenfor praktisk databehandling i SAS med henblik på at tilrettelægge data til efterfølgende statistiske og økonometriske analyser. I kurset behandles desuden statistiske og økonometriske procedurer, som ikke indgår i polit-studiets øvrige kurser. I kurset fokuseres på den praktiske anvendelse af procedurerne og på fortolkningen af output. Den bagvedliggende statistiske teori er ikke i fokus.

**Kompetencer**
- evne til at sætte sig ind i forskellige dele af SAS’s databehandlingsmoduler
- evne til at programmere med SAS i praksis
- kunne sætte sig ind i SAS-procedurers anvendelsesområder
- kunne anvende SAS-procedurer i praksis
- kunne uddrage information af SAS-procedurers resultater.

For at kunne bestå skal den studerende som minimum:
- kunne programmere i SAS procedure uden væsentlige misforståelser og programmeringsfejl
- beskrive fremgangsmåden forståeligt
- kunne anvende SAS procedurer uden væsentlige misforståelser og programmeringsfejl
- kunne konkludere i den rigtige retning ud fra en SAS procedurers resultater

**Teaching and learning methods:** Forelæsninger. Ved forelæsningen gennemgås metoderne ved online SAS-sessioner.

**Academic qualifications:** Økonometri A, og Økonometri B sideløbende på bachelorstudiet.

**Language:** Dansk

**Formal requirements:** Ingen
Learning Outcome: All through our life, we have to make decisions. Whether it is attending to the signal at a crossing, finding a spouse, or investing hard earned money, the common denominator is the choice between options of different values. How we perceive the value of an option depends on how the option is processed by our cognitive system. To understand human decision-making it is therefore crucial to understand human cognition.

Explanations and predictions of people’s choices, in everyday life as well as in the social sciences, are often founded on the assumption that humans are rational. The definition of rationality has been much debated, but there is general consensus that rational choices should satisfy some elementary requirements of consistency and coherence in the assessment of values. In this course we will study decision problems in which people systematically violate these requirements of consistency and coherency, and we trace the violations to the psychological principles that govern the perception of decision problems and the evaluation of options.

The course will provide an overview of the field by focusing on the most central topics and experiments. Some of the topics we will focus on during the course are attention limitations, anchoring, loss aversion, bounded recursive thinking, the importance of context and reference points, and mutual mental states. The impact and relevance of seminal research in each of these topics will be made clear through hands-on experimental experience.

Content: Content level: This course aims at introducing students to the interdisciplinary field of ‘the psychology of choice’, be it dependent (strategic) or independent of others’ choices (non-strategic). This interdisciplinary field has received wide recognition in recent years, for example by the award of the Nobel Prize in Economics 2002 to the psychologist Daniel Kahneman and the economist Vernon Smith. During the course students will learn how to investigate complex human behavior by means of empirically testable hypotheses and experiments. Students should understand how psychologists and economists attempt to understand the microfoundations of human choice behavior. Furthermore, it should provide an in-depth overview of the most important seminal works in the aforementioned topics covered during the course.

Methodological level: Students should learn to critically assess and relate the diverse ideas, concepts and theories developed in psychology and economics to explain humans’choice behavior. Furthermore, they should learn (i) how experiments are used in social sciences to investigate human choices and (ii) how to analyze and present their results in a simple / clear, but not superficial way.

Teaching and learning methods: Lectures

Academic qualifications: Sound knowledge of statistical methods and tests (Econometrics A and B, Statistik I and II, or equivalent).

Language: English

Formal requirements: B.Sc. in Economics or Psychology. Participation in the demonstration experiments as well as the assignments is required for admission to the final exam.
6.6.1.26 AØKA08035U Public Finance

Learning Outcome: The course focuses on the relationship between the government and the market and tries to answer such issues as when should the government intervene, and what problems can arise due to government interventions when governments operate under imperfect information and other imperfections.

The course will cover a range of the many critical decisions facing policy makers regarding both the expenditure side and the financing of the public sector. Examples of questions addressed in the course are:

- How large should governments be?
- What are the main arguments for government intervention?
- How do individuals and firms respond to government policies and why is it important?
- How can empirical methods be used to identify behavioral responses to government policy?
- Should governments provide private goods?
- How large are tax distortions and how are they minimized?
- How big is the trade-off between equality and efficiency?
- How high is the tax rate on the rich and how high should it be?
- How big a problem is tax evasion and what is the optimal strategy to fight it?
- Who bears the cost of a tax (often nothing is as it seems)?
- How do globalization affect the optimal tax policy?
- What is the scope for fiscal stimulus policy during economic crisis?
- What are the right and wrong policies to deal with the climate challenge?

Content: The course introduces students to main topics and theoretical and empirical methods in modern public finance. At the end of the course, students are expected to:

- know the main motives for and against public sector involvement in the economy
- know about key concepts as well as theoretical and empirical results in modern public finance
- be able to demonstrate a thorough understanding of the underlying mechanisms behind the theoretical results
- be able to apply the empirical methods introduced in the course

The grade 12 is awarded to students who show full capability of meeting these stipulated expectations.
Teaching and learning methods: Lectures

Academic qualifications: Knowledge of first and second year micro- and macro-economics.

Language: English

Formal requirements: None

Content: Formålet med faget er at indføre de studerende i praktisk anvendelse af fundamentalanalyse, der sætter dem i stand til kunne foretage en værdiansættelse af en virksomheds aktier. Hovedvægten lægges på analyse af finansiell information – specielt årsregnskabet – med henblik på at træffe beslutning omkring i virksomhedens aktier.

For at opnå karakteren 12 ved eksamen kræves det, at den studerende kan:

- Sammenligne og vurdere styrker og svagheder ved forskellige værdiansættelsesteknologier.
- Redegøre for Learning Outcomeet i fundamentalanalyse
- Reformulere rapporterede finansielle opgørelser til analysebrug
- Udarbejde analyser af rentabilitet og vækst – herunder forklare udviklingen i forskellige nøgletal
- Forstå værdiansættelsesmodeller er nyttemæssigt bestemt – de tjener til at vejlede praksis – hvorfor valget mellem konkurrerende modeller i sidste ende afhænger af, hvor nyttige de er i den praktiske opgave med at vurdere investeringsmuligheder

Teaching and learning methods: Forelæsninger: Dialogforelæsninger samt gennemgang af øvelser og minicases.


Language: Dansk

Formal requirements: Ingen
Learning Outcome: Over the last 30 years, behavioral scientists have gained a deeper understanding of what motivates people, how they process information, and what non-economic features of the choice environment influence decisions. Many of their insights challenge traditional assumptions such as rationality, self-interest, time consistency. This research program (sometimes called “Behavioral Economics” or “Psychology and Economics”) has shed light on how people’s decisions deviate from “optimal” choices as well as the consequences of such deviations. But, how can we use this knowledge? How can we get people to save more money, eat healthy foods and engage in healthy behaviors, and more generally make better choices? This course allows the student to develop a hands-on approach by learning and applying the methods of behavioral economics and more importantly, how it can be harnessed by suitably designing contexts to “nudge” choice. We will review research on human decision making from psychology, political science, organizational behavior and economics and we will look for easy-to-implement solutions. At the end of this course, students are supposed to become “choice architects” able to identify human biases and creatively design interventions, policies or products that help people make better decisions.

Content:

Students will review the most recent developments and theories of human decision-making both from Economics and Psychology.

- Students will analyze the tools of behavioral science (namely incentive, regulation, persuasion and nudging) and they will compare their effectiveness to change specific behaviors.

- Student will reflect on how experiments and randomized controlled trials work and why this methodology is critical for making inference about causal relationships.

- Student will debate and discuss critically several interventions that have been conducted to change people’s behavior in the domain of energy efficiency, health and well-being, dishonesty, charitable giving, education and work performance.

- Student will examine cases where people make decisions that are inconsistent with the assumptions of rational decision making and they will identify the consequences of this irrational behavior for the society.

- Students will design experiments and develop policy intervention aiming at ameliorate societal well-being and improve people’s life.

Teaching and learning methods: Lectures. Student participation will be expected and encouraged. An active discussion in class is essential for an effective peer learning. Some guest speakers (TBA) will present their ongoing research.

- Student will examine cases where people make decisions that are inconsistent with the assumptions of rational decision making and they will identify the consequences of this irrational behavior for the society.
- Students will design experiments and develop policy intervention aiming at ameliorate societal well-being and improve people’s life.

**Academic qualifications:** A sound knowledge of microeconomics and game theory is required.

**Language:** English

**Formal requirements:** To be able to sit in class and take the final exam, students have to present and discuss in class (at least) one of the papers in the reading list that will be distributed at the beginning of the course.
**6.6.1.29 AØKA08075U Skatteret (F)**

*In Danish only*

**Learning Outcome:** Fagets emnerækker bestod af en spændvidde fra den formelle skatteret med overblik over skattemyndigheder, formelle regler og sagsbehandlingsreglerne og til den materielle skatteret via personskatten, erhvervsbeskatningen og selskabs- og koncernbeskatningen. Endvidere berørtes emner som generationsskifte og omstrukturering. Under de materielle regler blev den subjektive skattepligt (fysiske personer og selskabers fulde og begrænsede skattepligt) som den objektive skatteret (opgørelse af skattepligtig indkomst) tilegnet.

Fagets emnerækker består af en spændvidde som følger:

- den formelle skatteret med overblik over skattemyndigheder, formelle regler og sagsbehandlingsreglerne i skatteforvaltningsloven
- den materielle skatteret via personskatten, lønmodtagere, selvstændigt erhvervsdrivende - og virksomhedsbeskatningen
- den materielle skatteret for selskaber- og koncerner, selskabsbeskatningen, sambeskatning, tilskudsforskriften
- den subjektive skattepligt for fysiske personer og selskabers fulde og begrænsede skattepligt.
- skatteberegningsreglerne.
- indkomstopgørelsen i øvrigt, de objektive regler.
- kapitalindtægter, afhændelsesavancer og udbytter (aktieavancebeskatningsloven, kursgevinstbeskatningsloven)
- fast ejendomsbeskatning.
- familiebeskatning, gaver mv.

**Content:** Faget har en akademisk/praktisk orienteret tilgang, hvor den studerende har mulighed for at få et indblik i de skattejuridiske retskilder, herunder med særlig vægt på tilegnelse af juridisk metode og de værktøjer som det kræves til arbejde med skatteret praksis.


Endvidere vil den studerende tilegne sig viden som giver mulighed for anvendelse af skatteret i en økonomisk analyse mv.
Teaching and learning methods: Forelæsninger

Academic qualifications: Der kræves ikke særlige forudsætninger for at deltage i undervisningen. Der vil løbende ske en indføring i juridisk metode, således at faget tilpasses deltagernes forudsætninger.

Language: Dansk

Formal requirements: Ingen
Content: The objective of this course is to learn how to gather and work with modern quantitative social science data. Increasingly, social data—data that capture how people behave and interact with each other—is available online in new, challenging forms and formats. This opens up the possibility of gathering large amounts of interesting data, to investigate existing theories and new phenomena, provided that the analyst has sufficient computer literacy while at the same time being aware of the promises and pitfalls of working with various types of data. Consequently, being an effective economist means spending large fractions of our time writing and debugging code. We write code to clean, transform, scrape and merge data that we want to analyze. This course will focus on the challenges that arise during this process, and thereby enhance our chances of posing new and challenging questions.

We will present data science methods needed for collecting and analyzing real-world data. In addition to core computational concepts, the course will focus on generating new data (collecting, scraping, working with APIs), data manipulation tools (transforming, cleaning), visualization tools (visualizing raw data and model results), reproducability tools (git, github), as well as provide a brief introduction to statistical techniques for prediction and classification, known as statistical learning.

Teaching and learning methods: The course will consist of two hours of lectures and one hour of exercises and problem solving per week. The lectures will focus on broad introductions to the topics covered in this course. One hour of exercises a week is not a large amount of time for learning how to code. We will use some of this time like development meetings: going over assignments, having detailed code reviews of various forms, and discussing blocking issues and potential solutions.

Academic qualifications: There are no hard requirements, but students are expected to have an interest in some subset of: statistics, econometrics, linear algebra, and a scripting language (we will use R in this course)
**6.6.1.32 AØKA08077U Stikprøveteori** *(in Danish only)*

**Content:** Kurset vil fokusere på formelapparatet omkring beregning af stikprøveusikkerhed, men også på moderne replikationsmetoder som fx bootstrap til beregning af stikprøveusikkerhed samt på korrekt anvendelse af stikprøvedata i statistiske analyser. Groft sagt er vægten fifty-fifty mellem formler og dataeksempler.

Til de praktiske eksempler anvendes programpakken SAS. Ikke SAS-kyndige vil hurtigt før kurset kunne få en introduktion til start af SAS, håndtering af data i SAS og afvikling af SAS procedurer. Så forhåndskendskab til SAS er ikke en forudsætning.

**Teaching and learning methods:** Teaching and learning methoden er forelæsninger med indbyggede små regneøvelser på lommeregner og på medbragt bærbar PC med SAS. Desuden vil der være både formelbaserede og computerbaserede øvelsesopgaver fra weekend til weekend. Der må altså påregnes individuel studieaktivitet i perioden mellem weekenderne.

**Academic qualifications:** For politstuderende forudsætter kurset Økonometri B bestået. For MatØk forudsættes statistikkurserne til og med andet år bestået. For deltagere fra andre uddannelser kræves et grundlæggende statistikkursus, der jo findes på mange universitetsuddannelser.

**Language:** Dansk

**Formal requirements:** Ingen
Learning Outcome: The course start by explaining some central terms, concept, and definition in the area of strategy as for instance the mission, vision and strategy of an organisation, and we will look into some different ways in which a strategy can be developed. In connection to this we will discuss behavioural theory and the idea of bounded rationality.

Next we will focus on how we can map and analyse the environment of a company and on how Porters Five Forces framework build on the neoclassical theory and the structure of conduct performance paradigm. Further we well determine competitive advantages and how economic value is created through the internal resources, activities, and competencies of the firm. Here we draw on the resource based view and evolutionary economic theory. Furthermore tools for mapping and analysing the political and cultural context of the company will be presented and in connection to this we will focus on principal/agent theory and behavioural theory.

After this we will discuss how corporate strategies, business/competitive strategies, international strategies, growth strategies and strategies on innovation can be developed. We will look into the different roles for the patterning company and the size of the corporation drawing on transaction cost theory. When looking at the competitive strategies of the company we will discuss the importance of long-term commitment, game theory, neo-institutional theory and constitutional theory. Furthermore we will be concerned with entrepreneurship and innovation and some of Schumpeters ideas of value creation. We will also explain what kind of route companies develop through over the long-term view and what kind of classical growth problems they are faces with during this development. Finally, in this section we will look at how we can evaluate different strategies concerning their suitability, acceptability, and feasibility.

In the last section of the course we will exemplify how companies can implement their strategies through organising the company, develop its functional areas and by managing strategic change. Again we will return to the ideas of bounded rationality and the management of stakeholders introduced within behavioural theory.

Content: In order to acquire the mark 12 within the course Strategic Management the student must demonstrate:

- Knowledge about and understanding of relevant terms, concepts, models, processes and perspectives within the field of strategic management and be able to relate these to different perspectives on economic theory and value creation.

- An ability to identify and solve strategic problems within organizations and industries by applying relevant terms, concepts, models, processes and perspectives from the discipline of strategic management on either cases or real organizations.

- An ability to discuss and evaluate the strength and weakness of the applied terms, concepts, models, processes and perspectives within the field of strategic management in relation to the behind economic theories.
- An ability to within the written exam case to identify and qualify strategic problems, argue for relevant use of models and there practical and theoretical implication, shortly present an organisation or an industry, conduct a couple of strategic analysis and put forward strategic solutions or identify possible strategic developments.

- An ability to write about organisations and there environment within a clear and accurate language that make use of relevant terms and concept from the field of strategic management and economic theory.

**Teaching and learning methods:** Lectures. Within the classes a combination of lectures, group work, student speeches and plenum discussion are applied. As a consequence students must prepare the text and cases in advanced. Further students must be willing to engage in presentation and discussion of text and cases.

**Academic qualifications:** In order to follow this course a basic understanding of micro and macro economics is necessary.

**Language:** English
Learning Outcome: The course gives an overview on the basic models used to analyze the efficiency implications and optimal design of tax policy. The course puts emphasis on linking formal analysis to empirical analysis and to discuss implications of theoretical and empirical findings for real world tax policy. Questions addressed in the course include:

- How do income taxes affect labor supply and savings decisions by households?
- Who bears the burden of consumption and income taxes?
- What is the optimal design of tax-transfer systems?
- How should environmental externalities be treated by the tax system?
- What are the implications of behavioural economics for tax policy?
- How is firm behavior affected by corporate taxes?
- Do firms successfully avoid paying taxes in a global economy?

Content: The course makes students familiar with advanced issues in tax policy analysis. Students should in this course acquire skills to evaluate how taxes influence household and firm behavior. Part of these skills consists of being able to communicate verbally and analytically an understanding of the models and their implications for tax policy design. The students will also learn to link theoretical results to empirical analyses and to interpret empirical results given the models which are discussed in the course.

At the end of the course students should be able to formulate their own research questions and to set up models which are appropriate in answering these questions. To obtain grade 12 the student must demonstrate these skills to perfection.

Teaching and learning methods: Lectures

Academic qualifications: Microeconomics at the Master level.

Language: English

Formal requirements: Students are asked to give a short overview on a research paper. No written material has to be handed in.
Learning Outcome: Supply and demand of telecommunication services: Fixed and mobile telephony, Internet, Cable TV, satellites etc. Prices, cost and investments. Business structure (vertical and horizontal mergers, globalisation). Regulatory policy. Interconnection and competition in the sector. Prices for interconnect. LRAIC models. UMTS auctions. Telecommunication policy and relationships between the telecommunication sector, the rest of the economy and the general society. Development for the Internet, E-trade, the broadband society etc. Relationships with IT and media.

Content: To obtain the highest grades in the assessments of examination in 'Telecommunications Economics' the following general criteria shall be met:

The student shall

- demonstrate knowledge of all relevant concepts and factual items regarding the questions raised and of the relationships be-tween these
- be able to design an analysis to give a thoroughly description of the problem and find possible solutions to the questions raised
- give a survey of the relevant economic issues regarding the que-stions raised
- explain constraints and uncertainties in the presented solutions, often in the form of trade-offs between different objectives.

As more concrete criteria - depending on the actual questions raised in the examination - the following shall be demonstrated:

Knowledge of

- the main trends and relationships in the ICT sectors (ICT=Information and Communication Technology) regarding de-mand, supply, prices, market players, technical solutions, regulation etc.
- the main economic and technical concepts and items used in the ICT sectors, especially for telecommunication, the Internet and supply of radio and TV channels.

The minimum criteria for passing the examination.

The student shall demonstrate knowledge of

- the most important concepts and factual items that are relevant for answering the questions raised
- the most relevant trends and relationships in the ICT sectors
- the possibilities and limitations of the use of relevant economic analy-ses
Acceptance of a limited amount of small and medium failures in the analysis presented, but normally no major failures can be accepted.

Teaching and learning methods: Lectures

Academic qualifications: None

Language: English
Learning Outcome: We will focus on the construction, solution and empirical validation of dynamic stochastic general equilibrium (DSGE) macroeconomic models. The first week of the course will be centered around the formulation and solution of DSGE models. We will first review the baseline structure of the Real Business Cycle model and the New Keynesian model. We will next consider some recent extensions to these baseline settings. There will be afternoon classes designed to acquaint participants with the numerical analysis of DSGE models. During the second week there will be lectures and classes aimed at reviewing various methods employed to validate DSGE models. Finally, a guest lecture will be provided by Jesper Pedersen from Danmarks Nationalbank on the structure and estimation of the DSGE model of the Danish economy.

Content: After the course the student should:

1. Have knowledge of the key building blocks of dynamic stochastic general equilibrium (DSGE) models.
2. Be able to formulate, solve and analyze small-scale DSGE models.
3. Be able to interpret formal results obtained from the analytical and numerical analysis of DSGE models, reporting them in economic and intuitive terms.
4. Be able to perform monetary policy analysis in the baseline New Keynesian model.
5. Have knowledge of the main empirical methodologies used to validate DSGE models.
6. Have a basic understanding of how DSGE models are implemented for both business cycle and normative analyses at modern monetary institutions.

Teaching and learning methods: Lectures

Academic qualifications: Familiarity with intertemporal optimization, the analysis of static and dynamic systems under rational expectations and basic multivariate econometrics.

Language: English

Formal requirements: None
6.6.1.37 AØKA08178U Videregående statistic (in Danish only)

**Learning Outcome:** Kurset fokuserer på de praktiske dele af emnekredsene. Det betyder at de matematiske udledninger bag metoderne kun sporadisk berøres, mens de praktiske aspekter prioriteres højt.

1. Praktisk Regressionsanalyse: Indflydelsesrige observationer, Multikollinearitet, Fortolkninger af den fundne model, Robus regressionsanalyse
2. Stikprøver: Bedømmelse af usikkerhed, Opvejning, Fortolkning af resultater, Muligheder for videre analyse
3. Korrelationsanalyse: Korrelationskoefficient, Principal komponenter, Todimensionale værdikort I undervisningen anvendes datasæt om økonomi, sociologi og samfundsforhold. Som eksempler kan nævnes:
   1. Datasæt, der beskriver udviklingslandenes økonomi, fx fra verdensbanken 2. Datasæt, der som European Social Survey beskriver og sammenholder sociologiske forhold i de europæiske lande

**Content:**

1. Evne til at læse videnskabelig litteratur, der bygger på indsamlede stikprøver eller multipel lineær regression
2. Erhverve et tilstrækkeligt kendskab til stikprøver og den multiple regressionsmodel, så den studerende efter kurset kan samarbejde med andre faggrupper, herunder statistikere
3. Evne til selv at analysere data
4. Evne til at relatere resultaterne til den virkelighed data stammer fra.

For at kunne bestå skal den studerende som minimum:

1. kunne gennemføre en regressionsanalyse og en vurdering af en stikprøveindsamling uden væsentlige fejl
2. fortolke resultaterne i forhold til emnefeltet, dvs. den virkelige verden
3. beskrive fremgangsmåden klart og tydeligt


**Academic qualifications:** Deltagelse i kurset kræver, at man har bestået Økonometri A. For eksterne deltagere kræves kvalifikationer svarende til det ovenfor beskrevne.
Language: Dansk

Formal requirements: Ingen

Content: De studerende skal lære at foretage analyser og udarbejde økonomiske prognoser i praksis på baggrund af den makroøkonomiske model ADAM. Efter et succesfuldt gennemført kursus skal de studerende have lært følgende:

1. Opbygning af scenarier for dansk økonomi frem i tid under givne forudsætninger
2. Ændring og revision af allerede udarbejdede prognoser på baggrund af ny information
3. Vurdering af økonomiske prognoser foretaget af andre
4. Udarbejdelse af analyser på baggrund af politiske indgreb eller eksogene stød til dansk økonomi
5. Systematisk brug af nøgletal og indikatorer som baggrund for det/de første ikke kendte år
6. Indgående kendskab til den makroøkonomiske model ADAM både dens teoretiske baggrund og dens egenskaber
7. Indarbejdelse af teoretiske ændringer i makroøkonomiske modeller

Teaching and learning methods: Forelæsninger og holdundervisning


Det vil være nødvendigt at have adgang til en bærbar computer til øvelsestimerne, hvorpå Excel (eller lignende program) er installeret og Gekko kan installeres. Internetforbindelse til den bærbare computer vil være en stor fordel. Gekko vil være ganske gratis at downloade og installere for alle, som har lyst til at bruge det. Gekko kører på alle windows-systemer fra XP og opad (også 64-bit). Der er ikke særlige krav til hardware eller lign. Men den kører ikke umiddelbart på Mac eller Linux.
Language: Dansk

Formal requirements: Ingen
Learning Outcome: Kurset indeholder 3 moduler:


Content: Det overordnede formål med undervisningen er, at de studerende efter gennemførelsen af kurset skal have en professionel viden om årsrapporters informationsindhold. Dette til brug i analysemæssig sammenhæng hvad enten den studerende bliver ansat i den offentlige sektor, bliver analytiker i f.eks. banker eller ønsker ansættelse i en anden privat virksomhed. Modul 2 og 3 træner dels forståelse og kritiske stillingtagen til regnskabsinformation samt dels den regnskabsanalytiske kompetence.

Teaching and learning methods: Forelæsninger og opgaver

Academic qualifications: Gennemførelse af 1. år af bacheloruddannelsen i økonomi eller tilsvarende.

Language: Dansk