University of Groningen
Faculty of Economics

Study Guide Econometrics and Economics
2005-2006

BSc Econometrics
BSc Economics

MSc Econometrics
MSc Economics

Overgangsregelingen doctoraalspleidingen
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Colophon
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Although the greatest care has been taken to ensure the accuracy of all information, there may be unintentional errors and changes or deletions without notice. The matters covered by this publication are subject to change from time to time both before and after a student’s admission.
Welcome

Dear student,

We are quite proud to offer you this guide to our bachelor and master programmes in Economics and in Econometrics and Operations Research. For you, the source of this sentiment of pride may be unclear, but for us the publication of this guide marks the occasion where all these programs will be taught in English. This was already the language for the two bachelor programmes described here, and they are now joined by their bachelor counterparts.

Introducing this shift in language may seem a minor operation, but took us some time to accomplish since various elements were involved. For example, we had to obtain official permission to use another language than Dutch (I will not begin to try to explain how to do that), and we had to be sure of the language proficiency of all of our colleagues teaching in the programmes. But we feel the effort worth the while since it now officially opens up some very attractive programmes for students from the world over, which will eventually make our faculty an even more interesting, international place to study. We already have about 325 students from over 25 countries, and we work hard to expand these numbers.

This does not mean that all is perfect. In particular the physical surroundings that will constitute your environment as a student can be improved. In fact, they will, and drastically so, starting from late fall 2005, with completion planned for 2008. This is not the place to describe what exactly is going to happen, but the final result looks very inviting and attractive. Unfortunately, a major operation like this will cause occasional inconvenience for all involved, which I do regret.

Anyhow, I hope you enjoy the programmes offered in this guide. Let me conclude by expressing my sincere wish that you will feel at home in our faculty, and that your stay at our university will be both fruitful and enjoyable.

To J. Wansbeek

Tom Wansbeek, dean
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**Appendix 1**

Objectives and final competences of the FEW bachelor’s degree programmes

**Appendix 2**

Objectives and final competences of the FEW master’s degree programmes

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Regulations for FEW Group Trips Abroad

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Plagiarism

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</tr>
<tr>
<td>42</td>
<td>L7</td>
<td>Mon. 17 Oct.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>L8</td>
<td>Ends Fri. 28 Oct.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>E1</td>
<td>Mon. 1 Nov.</td>
<td></td>
<td>Regular examinations for HS 1.1</td>
</tr>
<tr>
<td>45</td>
<td>E2</td>
<td>Ends Fri. 11 Nov.</td>
<td></td>
<td>HS 1.1 material</td>
</tr>
<tr>
<td>Semester 1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>L1</td>
<td>Mon. 14 Nov.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>L2</td>
<td>Mon. 21 Nov.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48</td>
<td>L3</td>
<td>Mon. 28 Nov.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>L4</td>
<td>Mon. 5 Dec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>L5</td>
<td>Mon. 12 Dec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>L6</td>
<td>Mon. 19 Dec.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td></td>
<td>Mon. 26 Dec.</td>
<td>Christmas holiday</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>No classes</td>
<td>Ends Fri. 6 Jan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>L7</td>
<td>Mon. 9 Jan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>L8</td>
<td>Ends Fri. 20 Jan.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>E1</td>
<td>Mon. 23 Jan.</td>
<td></td>
<td>Resit examinations for HS 1.1</td>
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<tr>
<td>5</td>
<td>E2</td>
<td>Mon. 30 Jan.</td>
<td></td>
<td>material &amp; regular examinations</td>
</tr>
<tr>
<td>6</td>
<td>E3</td>
<td>Ends Fri. 10 Feb.</td>
<td></td>
<td>for HS 1.2 and S 1 material</td>
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</table>

C = Calendar week; L = Lecture week; E = Examination week; HS = Half Semester; S = Semester
<table>
<thead>
<tr>
<th>C</th>
<th>L / E</th>
<th>Start/finish</th>
<th>Notes</th>
<th>Activities</th>
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<tbody>
<tr>
<td>Semester 2.1</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td>L1</td>
<td>Mon. 13 Feb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>L2</td>
<td>Mon. 20 Feb.</td>
<td></td>
<td></td>
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<tr>
<td>9</td>
<td>L3</td>
<td>Mon. 27 Feb.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>L4</td>
<td>Mon. 6 Mar.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>L5</td>
<td>Mon. 13 Mar.</td>
<td></td>
<td></td>
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<tr>
<td>12</td>
<td>L6</td>
<td>Mon. 20 Mar.</td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>L7</td>
<td>Mon. 27 Mar.</td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>L8</td>
<td>Ends Fri. 7 Apr.</td>
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<td></td>
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<tr>
<td>15</td>
<td>E1</td>
<td>Mon. 10 Apr.</td>
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<td>16</td>
<td>E2</td>
<td>Mon. 17 Apr.</td>
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<td>17</td>
<td>E3</td>
<td>Ends Fri. 28 Apr.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Semester 2.2                   |       |              |       |            |
| 18 | C1    | Mon. 1 May   | 5 May  | Liberation Day |
| 19 | C2    | Mon. 8 May   |       |            |
| 20 | C3    | Mon. 15 May  |       |            |
| 21 | C4    | Mon. 22 May  | 25 May | Ascension Day |
| 22 | C5    | Mon. 30 May  |       |            |
| 23 | C6    | Tue. 6 June  | 5 June | Whit-Monday |
| 24 | C7    | Mon. 12 June |       |            |
| 25 | C8    | Ends Fri. 23 June | |            |
| 26 | T1    | Mon. 26 June |       |            |
| 27 | T2    | Mon. 3 July  |       |            |
| 28 | T3    | Ends Fri. 14 July | |            |
| 29 | Holiday | Mon. 17 July |       |            |
| 30 | Holiday | Mon. 21 August |       |            |
| 31 | Holiday | Ends Fri. 18 Aug. | |            |
| 32 | Holiday | Ends Fri. 1 Sept. | |            |

C = Calendar week; L = Lecture week; E = Examination week; HS = Half Semester; S = Semester
Division of the academic year 2005-2006 lecture periods

   Block 2: 14/11/2005 - 10/02-2006
   Examinations in the last two or three weeks of each block

2nd semester: Block 1: 13/02/2006 - 28/04/2006
   Block 2: 01/05/2006 - 14/07/2006
   Examinations in the last two or three weeks of each block

Resits: At the end of the next block and 21/08/2006 - 01/09/2006 (for block 2.2)

Lecture-free days (the university will be closed)

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Good Friday</td>
<td>14/04/2006</td>
</tr>
<tr>
<td>Easter Monday</td>
<td>17/04/2006</td>
</tr>
<tr>
<td>Liberation Day</td>
<td>05/05/2006</td>
</tr>
<tr>
<td>Ascension Day</td>
<td>25/05/2006</td>
</tr>
<tr>
<td>Whit-Monday</td>
<td>05/06/2006</td>
</tr>
</tbody>
</table>

Days on which lectures (may) be postponed

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economists’ congress</td>
<td>7 October 2005</td>
</tr>
<tr>
<td>Information day RuG</td>
<td>4 November 2005</td>
</tr>
<tr>
<td>Student for a day</td>
<td>8 and 9 December 2005</td>
</tr>
<tr>
<td>Open day RuG</td>
<td>3 March 2006</td>
</tr>
<tr>
<td>Lecture ‘Carrousel’</td>
<td>4-6 April 2006</td>
</tr>
<tr>
<td>Parents’ day RuG</td>
<td>2 June 2006</td>
</tr>
<tr>
<td>BIG Congres</td>
<td>See: <a href="http://www.bigcongres.nl">http://www.bigcongres.nl</a></td>
</tr>
</tbody>
</table>

The academic year is divided into two semesters. These semesters are further subdivided into half semesters (also referred to as ‘blocks’). Each half semester lasts 8 lecture weeks followed by an examination period of 2 to 3 weeks. Examinations may be repeated after the next half semester. The resit examinations for the fourth half semester will be held at the end of August.

Most courses will be offered and examined within a block. Some 10 EC courses are semester courses. Check the course descriptions for examination periods and resit periods. Intermediate tests may take place halfway through the study material of the semester courses.
A2.2 Registration for a RuG study programme

At the Central Student Administration (CSA) you can find information about:

- Registration/deregistration for study programmes
- Payment or reimbursement of tuition fees
- Declarations required by external institutions

Opening hours are from 10.00 till 16.00 hours daily. For address and contact details see parts D1.1 and D14.13.

Graduates of the bachelor programme in Econometrics will be granted direct admission to the MSc Econometrics programme. Similarly, graduates of the bachelor programme in Economics will be automatically admitted to the MSc Economics programme. You can register as a master student using the (re-)registration form sent by the Central Student Administration (Centrale Studenten Administratie, CSA). For students coming from other bachelor programmes, an admissions board will decide on admission to the master programmes. See for more information about admission and registration to the master programmes part B5.1.

A2.3 Obligatory registration for courses and examinations

You must register via [http://progresswww.nl/rug](http://progresswww.nl/rug) for all the courses and examinations you plan to do. You can use one of the computers at the Computer Centre (Rekencentrum, RC) to register (RC 0013, 0023, 0032, 0033 and 0046). See also part D1.

When you register for examinations, you will need the account number and password you have received from the university. When you attend an examination, you must be able to produce proof of registration as a RuG student (student card) as well as proof of registration for the examination (print out ProgRESSWWW).

For registration for General Subjects (AVV); first select “Algemeen Vormende Vakken” in the menu at ProgRESS WWW, then the Faculty.

Registration for a course is not without obligations. Once you have registered, you are expected to follow the course or do the examination. Of course, you can withdraw from the course or examination within the registration period. If special circumstances compel you to withdraw from a course or examination before it begins, you should inform the Faculty Education Office via the Information Desk. You must fulfil the requirements for the course before it commences, otherwise you will not be admitted to it. For more information, see the subject entries on the joint website of the Faculties of Economics and Management and Organization: [http://www.rug.nl/ocasys](http://www.rug.nl/ocasys).
Registration for courses is only possible from seven till two weeks before the first lecture week. The registration deadlines are therefore as follows:
Semester 1, block 1: until 21 August 2005
Semester 1, block 2: until 30 October 2005
Semester 2, block 1: until 29 January 2006
Semester 2, block 2: until 16 April 2006

Registration for exams is open from four weeks to seven calendar days before the examination.

Registration for students from other faculties
Students from other faculties should follow the same procedure as students from the Faculty of Economics and students from the Faculty of Management and Organization (i.e. via the ProgRESS WWW website). The above registration periods also apply.

If you miss the registration deadline for an examination
Report to the examiner in charge immediately before the start of the examination. He/she will decide whether you may take the examination. There is no room for debate. It is not possible to register for examinations by telephone. See also part D1.

A2.4 Study progress requirements
You can find an overview of study progress requirements at the end of every programme of study in part B.

A2.5 Right of appeal
If you disagree with an examination result or regulation, you can lodge an appeal with the board of examiners. If you wish to do so, contact your study advisor for advice. For the address see part D14.

A2.6 Study delay/personal circumstances
If you are behind with your studies, make sure you report this as soon as possible! If your studies are hindered by difficult circumstances (e.g. illness, disability, family problems, pregnancy, dyslexia), you should notify your study advisor immediately. Students who are entitled to a study grant from the IB-group can apply for financial assistance from the university’s Graduation Fund if they report the problem within one month of it arising. For more information see part D5.

A2.7 Exemptions
Exemption from certain examinations may be granted provided that the requirements are met (previous qualifications and results). It is not possible to summarise all the requirements here. Students wishing to apply for an exemption should use the relevant form. This form is available on internet. For more information see part D2.1.
A2.8  Timetables
An overview of the lecture and examination periods can be found in part A2.1 of this study guide. All timetables for the Faculty of Economics and for the Faculty of Management and Organization can be found at the relevant website: www.rug.nl/economics/informationfor/students/next click schedules 2005-2006. Groups for tutorials and practicals will be published on Nestor, select communities (http://nestor.rug.nl).

A2.9  Syllabus shop and book sales
Readers and lecture notes are on sale in the Social Area on the ground floor of the WSN Building (WSN 008). The shop is open daily between 12.00 and 14.00 hours. The book sales from the Economics Students’ Society (EFV) and VESTING (society for students of Econometrics, Operational Research and Actuarial Studies) take place just before the start of each semester. Details of the sales are sent out well in advance. For more information see parts D12.3 and D12.4.

A2.10  Degree certificate ceremonies

Propaedeutic certificate
Students need not submit a request for a propaedeutic certificate. If the administrative records are complete, it will be prepared automatically. Students will be informed. Students who have fulfilled the requirements of the propaedeutic year without receiving a message should contact the Information Desk, WSN 203-205. Graduation dates will be published in the university newspaper (UK). More information can be found in part D7.3.

Bachelor’s and master’s degree certificate (including the old (doctoraal) programme
There are two bachelor’s degree certificate ceremonies per year. Application forms for participation in the ceremony must be handed in at least six weeks in advance at the Information Desk, WSN 203-205. There are a number of master’s and doctoraal degree certificate ceremonies per year. Degree certificate ceremonies usually take place on the last Friday of the month. You should apply for participation in a degree certificate ceremony at least six weeks in advance. More information can be found in part D7.3.

A2.11  Study results
Examination results are published on ProgRESS WWW (http://progresswww.nl/rug). Examination results must be published no later than 15 working days after the date on which the examination was taken. For more information see part D2.3.

A2.12  Choosing a specialization/master programme
• You can find an overview of relevant information events in part B5.1.2 in this study guide. Be sure to visit these.
• You can contact your study advisor for general information about programmes of study.
Part A - Important information

• For questions about the contents of a bachelor or master programme, please contact the programme coordinator.
• For questions about courses you can contact the professor.

A2.13 Studying abroad/exchange programmes
Each year, grants are made available for this purpose. It is important that you are well informed about the opportunities and that you prepare thoroughly for the period of study abroad. For more information check D6 and the website of the exchange office:
www.rug.nl/economics/informationfor-students/studyingAbroad/index

A2.14 Change of address
If you move to another address you must notify the Central Student Administration office (CSA) of your new address. If you fail to do so in good time, you may not receive important faculty information relating to your studies. Notify the CSA, not the Faculty office, when you move. You can do this by e-mail (csa@bureau.rug.nl) or via ProgRESS WWW. For addresses, see part D14.13.

A2.15 Urgent educational information
Nestor is the name given to the Electronic Learning Environment (ELO) at the RuG. The computer programme is used to publish course information, information events about programmes of study and other important last minute information for students. For more information see part D13.2.

Timetable changes and examination dates etc. are also published in the university newspaper (UK; Universiteitskrant). The UK is published every Thursday, and is available in the WSN building.
Once announcements have been published in the UK, students are expected to be aware of them. UK announcements are also posted on the Internet:
http://www.uk.rug.nl/mededelingen/mededelingen.html

A2.16 Addresses and opening hours
For addresses and opening hours see part D14.
Part B – Programmes Econometrics and Economics

B2 An overview

The figure on the next page gives an overview of all bachelor’s and master’s degree programmes of the FBK and the FEW. The arrows indicate through which bachelor’s degree programme students can continue with a particular master’s degree programme. Each bachelor’s degree programme gives admission to at least one master’s degree programme, the so-called transfer master. For particular specializations within a master’s degree programme prerequisites apply. Students have to ‘filter’ on that specialization by choosing the right specialization course in the third year of the bachelor’s degree programme.

All bachelor’s degree programmes of the FBK and the FEW last for three years. The master’s degree programmes last one year, except for the ‘Lerarenopleiding Economie en Bedrijfswetenschappen’ (teacher-training programme) and the Top Master programme, which both last for two years.
B3 Organization

Structure of the board of the FBK and FEW
The University of Groningen is responsible for academic education of high quality, for study programmes that are feasible and for good facilities in education as well as for students. The faculties are competent and responsible for the construction and the maintenance of education. Therefore the structure of the board contains various important organs with an emphatic participation of students.

The faculty boards both consist of three members and are advised by a student. The participation of staff and students is organized through the faculty council. Both councils consist of 14 members, of which seven are chosen through and from the staff and of which seven are chosen through and from students.

The faculties have appointed programme directors for the study programmes. On behalf of the faculty boards these programme directors are responsible for the organization and coordination of the programmes. Furthermore they give advice to the faculty boards about the content, the composition and the programming of several activities of education, and also about the system of quality assurance.

Important committees in the field of education are the educational committees. Each study programme has an educational committee. The task of this committee consists of giving advice – on request or of one’s own accord – about all affairs regarding education. Half of the committee consists of students. To contribute to the administrative processes of the faculty students are organized in the ‘Economen Unie’ (Economist’s Union).

In the table on the next page you can find the names of programme directors and educational coordinators of all study programmes of the FBK and the FEW.
### Bachelor’s degree programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Faculty Director</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountancy &amp; Controlling</td>
<td>FEW Jeltje van der Meer</td>
<td>Dick Assink</td>
</tr>
<tr>
<td>Business Studies</td>
<td>FBK Jan de Vries</td>
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</tr>
<tr>
<td>Economics</td>
<td>FEW Vacancy</td>
<td>Paul Elhorst</td>
</tr>
<tr>
<td>Economics &amp; Management</td>
<td>FEW Peter Smid</td>
<td></td>
</tr>
<tr>
<td>Economics of Taxation</td>
<td>FEW Peter Smid</td>
<td>Marianne Christen</td>
</tr>
<tr>
<td>Econometrics</td>
<td>FEW Kees Praagman</td>
<td></td>
</tr>
<tr>
<td>International Business &amp; Management (variant within BSc Business Studies)</td>
<td>FBK Kees van Veen</td>
<td>Hester Huizinga</td>
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<tr>
<td>International Economics &amp; Business</td>
<td>FEW Bart van Ark</td>
<td>Beppo van Leeuwen</td>
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<tr>
<td>Industrial Engineering and Management</td>
<td>FWN* John Simons</td>
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</tr>
<tr>
<td>Technology Management</td>
<td>FBK Jannes Slomp</td>
<td>Pieter Lont</td>
</tr>
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</table>

### Master’s degree programmes

<table>
<thead>
<tr>
<th>Programme</th>
<th>Faculty Director</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountancy &amp; Controlling</td>
<td>FEW Jeltje van der Meer</td>
<td>Dick Assink</td>
</tr>
<tr>
<td>Business Administration, specializations:</td>
<td>FBK Vacancy</td>
<td></td>
</tr>
<tr>
<td>- Business &amp; ICT</td>
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<td>Egon Berghout</td>
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<tr>
<td>- Business Development</td>
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<td>Derk Jan Kiewiet</td>
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<tr>
<td>- Change Management</td>
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<td>Ben Emans</td>
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<tr>
<td>- Finance</td>
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<td>Peter Smid</td>
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<tr>
<td>- Marketing</td>
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<td>Karel Jan Alsem</td>
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<tr>
<td>- Operations and SupplyChains</td>
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<td>Martin Land</td>
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<tr>
<td>- Organizational and Management Control</td>
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<td>Henk ter Bogt</td>
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<tr>
<td>- Small Business &amp; Entrepreneurship</td>
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<td>Clemens Lutz</td>
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<tr>
<td>- Strategy and Innovation</td>
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<td>Gerda Gemser</td>
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<tr>
<td>Economics</td>
<td>FEW Vacancy</td>
<td>Paul Elhorst</td>
</tr>
<tr>
<td>Econometrics, OR and Actuarial Studies</td>
<td>FEW Kees Praagman</td>
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<tr>
<td>Economics of Taxation</td>
<td>FEW Peter Smid</td>
<td>Marianne Christen</td>
</tr>
<tr>
<td>Human Resource Management</td>
<td>FBK Erik Bax</td>
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<td>Beppo van Leeuwen</td>
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<tr>
<td>Industrial Engineering &amp; Management</td>
<td>FWN* John Simons</td>
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<tr>
<td>International Business &amp; Management</td>
<td>FBK Kees van Veen</td>
<td>Niels Hermes</td>
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<tr>
<td>Teachers Training Programme</td>
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<td>Geert Hoovers and</td>
</tr>
<tr>
<td>Technology Management</td>
<td>FBK Jannes Slomp</td>
<td>Louwrens Wouda</td>
</tr>
<tr>
<td>Top Master in Economics and Business</td>
<td>FEW Jakob de Haan</td>
<td>Bart Los</td>
</tr>
</tbody>
</table>

*Acronym of Faculteit der Wiskunde en Natuurwetenschappen, Faculty of Mathematics and Natural Sciences*
B4 Bachelor’s degree programmes

B4.1 BSc Econometrics

B4.1.1 Programme description

Director/coordinator: dr. C. Praagman, WSN 251, 050-363 7076, c.praagman@rug.nl
Secretary: ms. E.S. Bennink-Bambang Oetomo, WSN 260, 050-363 3460, e.s.bennink@rug.nl
Study advisor(s): drs. J. Karssies, studyadvisors-eco@rug.nl
Information event(s): master’s degree programmes, see B5.1.2

Objective/Content

The Bachelor of Science programme Econometrics concerns the modelling approach to the description and analysis of issues from economics, management and related areas. The main objectives of the programme are obtaining knowledge about the most important models presently in use, acquiring the necessary background in mathematics and statistics and attiring a research oriented attitude. Training of the ability to translate the findings of the modelling approach to results relevant for the relevant application area is an integrated part of the program. To reach these objectives the focus in the first year and in the first part of the second year is on mathematics and statistics. Other subjects in the first two years are introductory courses for the main areas of economics and programming. The mainstreams of the programme are treated in the second and third year: operations research, actuarial science, econometrics and mathematical economics. The final semester of the programme consists on the one hand of a bachelor thesis as a conclusion of the bachelor program, and the other hand gives the opportunity to prepare the student on one of the profiles of the master programme Econometrics, Operations research and Actuarial Studies. Elective courses offer the opportunity to broaden one’s knowledge of the economic application areas. To establish a connection between the scientific nature of the programme and the working environment of econometric bachelor cases play an important role in the program. Following part of the programme at a university abroad is encouraged. The programme aims at both Dutch and foreign students. The language of the programme is English. Students who want to improve their English skills are offered the opportunity to follow a language course.

Future working areas

Job perspectives for econometricians remain very good. Banks, insurance companies and consultancy firms have good offers. Also the more traditional employers like the CBS are the government continue to hire econometricians. By further study and specialization, for instance by completing a master programme one can aim for a more research oriented career, for instance a PhD student at a university. This does not have to be restricted to a subject in the area of econometrics, operations research, actuarial science, mathematical economics or statistics, but it could also be in economics, management, logistics, or the one of the social sciences.
B4.1.2 Programme of study

Year: 1  Profile: core programme BSc Econometrics

<table>
<thead>
<tr>
<th>sem</th>
<th>course title</th>
<th>code</th>
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<td>Introduction to Computers</td>
<td>EWP007A02</td>
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<td>1.1</td>
<td>Statistics Ia for Econometrics</td>
<td>EWP025A03</td>
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<tr>
<td>1.1</td>
<td>Mathematics Ia for Econometrics</td>
<td>EWP032A04</td>
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Study guide 2005-2006 Econometrics/Economics

Year: 3
Profile: core programme BSc Econometrics

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Year: 3
Profile: electives BSc Econometrics

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B4.1.3 Regulations

Entry requirements 2nd & 3rd year: Propaedeutic phase of Econometrics
Provisional admission 2nd year: ≥ 45 EC obtained by propaedeutic courses
Entry requirement bachelor’s thesis: 120 EC of the bachelor’s degree programme
Approval study programme: You can download a form from the internet
Transfer master: MSc Econometrics, Operations Research and Actuarial Studies
Moment of intake: September 1st (later is possible, but not recommended due to the programme structure)
Entry requirement master: Bachelor’s degree Econometrics including the applicable specialization course
Provisional admission master: ≥ 150 of the bachelor’s degree programme including the applicable specialization course

Note: provisional admission can lead to problems in your planning
The 1st semester of the master (nearly) consists of only compulsory courses. Combined with (more than one) bachelor’s courses in the 1st semester it can lead to considerable delay.

Entry requirement master’s thesis: Bachelor’s degree and ≥ 20 EC of master’s courses
B4.2  BSc Economics

B4.2.1  Programme description

Director: vacancy
Secretary: WSN 545, mrs. E.M. Baars-Drent, 050-363 7018, e.m.baars@rug.nl and mrs. H. van der Vleuten, 050-363 3740, h.c.w.e.van.der.vleuten@rug.nl
Coordinator: dr. J.P. Elhorst, WSN 550, 050-363 3893, j.p.elhorst@rug.nl
Study counsellor: drs. J. Karssies, studyadvisors-eco@rug.nl
Information event(s): master’s degree programmes, see B5.1.2

Objective/content
The bachelor’s degree programme in Economics offers a high-quality practical and theoretical foundation for any profession in this field. The programme’s objective is to offer an internationally competitive and high-quality degree. The international character of the programme is demonstrated through the medium of English as language of communication and the use of international literature.
Upon completion of the bachelor’s degree programme in Economics, students have direct access to the master’s degree programme in Economics. The level and load of this programme are comparable to foreign equivalents and therefore a BSc degree in Economics allows access to other international master’s degree programmes. The University of Groningen and the University of Hamburg and the KU Leuven are collaborating in establishing international cooperation and exchanges.
The focus on both theory and practice prepares the students for professional life. First, the students are taught high-grade general economic theory, which is essential for any profession in the field of policy or research. Second, the curriculum also concentrates on the application of theory into practice, e.g. the bachelor’s thesis. The writing of the bachelor’s thesis also helps to develop judgement and communication (through the thesis seminar, in which students learn to present, defend and criticise).
An economist concentrates, depending on his or her interest, on the following issues:
• An economic historian focuses on the origins of economic growth, the role of technological development and innovation.
• A spatial economist focuses on the location choice of producers and consumers, commuting, migration, transport, and regional development.
• An economist in the field of public finance focuses on budgetary policy, debt policy, taxes and political decision-making.
• A macro-economist studies business cycles, consumption, savings, investments, and the evolution of the interest rate.
• A monetary economist concentrates on the financial establishment, payments, supervision, the EMU and central banks.
• A micro-economist concentrates on individual consumer and producer behaviour, game theory, and types of markets.
All these elements will be addressed during the study programme. General economists will primarily focus on economic theory and policy. This field of study has much common ground with theory of law, social sciences and political science.
General economists will have the opportunity to follow lectures at other faculties through the General Studies Subject.

Future working areas
Many types of companies recruit Economics graduates. In the past, it was thought that economists were only employed at government bodies. But nothing could be further from the truth. Some examples of career opportunities for graduates in Economics are:

- financial institutions (banks), pension funds and insurance companies;
- Nma, the Netherlands Competition Authority;
- companies such as Shell, Unilever, Philips, and Gasunie;
- universities in the Netherlands and abroad.

There are various areas of work:

- researcher at a university; consultant (KPMG), consultancy firm (NEI, TNO) or institute for applied research (CBS, CPB);
- policy-maker (ministry, local or regional authority);
- corporate team (bank, pension fund, insurance company, Shell, Unilever, Philips);
- scientist or policy-maker at an international organisation (OECD, IMF, EU);
- journalist on a daily or weekly publication.

B4.2.2 Changes in the programme as of September 1, 2005
On September 1, 2005, the bachelor’s degree programme of Economics is subject to three changes:

- The language of the bachelor Economics is changed into English.
- The structure of the second year of the study programme is changed.
- The structure of the third year of the study programme is changed as of September 1, 2006.

The implication of the first change is that students who finish their study after September 1, 2005, do not receive a bachelor’s degree certificate in Dutch any more. The first-year programme of the BSc Economics is similar to the study programme of the BSc International Economics and Business and has not changed. The second-year programme is subject to four changes (see also table of conversions):

- International Business 2b is eliminated;
- International Marketing is reduced to 6 EC;
- Econometrics (for GE) has moved from the third year to the second year;
- Optimization changes into Mathematics (for GE) and increases to 9 EC.
### Table of conversions

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If you have finished the first year, you can immediately start with the new programme in your second year. If you did the Dutch route of the BSc Algemene Economie you must switch to the English route. Since you already did the course International Marketing in their first year, but not the course English, you must follow a course in English of 6 EC in semester 1.2 instead of International Marketing. Don’t miss it, since it is a non-recurring course.

If you finished your second year and start with your third year on September 1, 2005, you should do the old programme (see the study guide of last year). You may only switch to the new programme after approval of the educational coordinator. If you want to switch to the new programme, but already passed the exam(s) in International Business 2b or International Marketing for 9 EC, you may cancel optional courses in the third year.

Changes in the third-year programme become effective on September 1, 2006. Microeconomics 3, Economic History BA, Macroeconomics 3 and Spatial Economics will be reduced from 6 to 5 EC. Since Econometrics (for GE) of 6 EC is also moved from the third to the second year, there is space for two new courses of 5 EC each, namely History of Economic Thought and International Economics 3. These six courses are planned in the first semester of the third year. The second semester of the third year remains the same.
### B4.2.3 Programme of study

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Profile: core programme BSc Economics

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Part B - Programmes Econometrics and Economics

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</tr>
</tbody>
</table>

* Compulsory when you choose the specialization Monetary Economics of the master programme Economics.
** Compulsory when you choose the specialization Economic Policy of the master programme Economics.

B4.2.4 Regulations

Entry requirements 2nd & 3rd year Propaedeutic phase Economics or IE&B
Provisionary admission 2nd studiejaar ≥ 45 EC obtained by propaedeutic courses
Entry requirement bachelor’s thesis 120 EC of the bachelor’s degree programme
Approval study programme You can download a form from the internet
Transfer master MSc Economics
Moment of intake September 1st (later is possible, but not recommended due to the programme structure)
Entry requirement master Bachelor’s degree Economics including either the Specialization Course Financial Intermediation or Political Economics
Provisional admission master ≥ 150 of the bachelor’s degree programme (≥ 165 EC as of September 2007) including either the Specialization Course Financial Intermediation or Political Economics
<table>
<thead>
<tr>
<th>Note: provisional admission admission can lead to problems in your planning</th>
<th>The 1st semester of the master (nearly) consists of only compulsory courses. Combined with (more than one) bachelor’s courses in the 1st semester it can lead to considerable delay.</th>
</tr>
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<tbody>
<tr>
<td>Entry requirement master’s thesis</td>
<td>Bachelor’s degree and $\geq 20$ EC of master’s courses</td>
</tr>
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</table>
B5 Master’s degree programmes

B5.1 Admission to master’s degree programmes

B5.1.1 Admission from Econometrics or Economics bachelor’s degree programmes

Graduates of the bachelor’s degree programme in Econometrics will be granted direct admission to the MSc Econometrics programme. Similarly, graduates of the bachelor’s degree programme in Economics will be automatically admitted to the MSc Economics programme.

To be admitted provisionally to the Econometrics master programme, students should have passed the applicable specialization course and have a deficiency of no more than 30 EC.

Students who have participated in the Economics bachelor’s degree programme may be provisionally admitted to the Economics master’s degree programme including the applicable specialization course with a deficiency of no more than 30 EC (15 EC per 1 September 2007).

In June the Central Student Administration (CSA) will automatically send the (re)registration form to your mailing address. On this form, you can indicate which master programme you are planning to follow in the next academic year. It is possible that you are not sure whether you will satisfy the admission requirements by the start of the academic year. Until you have obtained your bachelor’s degree, you will automatically remain registered as a bachelor student.

N.B. Provisional admission status allows you to participate in master courses while still registered as a bachelor student for a maximum of twelve months. After you have satisfied all the entrance requirements for unconditional admission to the master programme, you can obtain a registration form from the Information Desk and convert your CSA bachelor registration into a master registration.

B5.1.2 Choosing a master’s degree programme or profile

Selection
Step 1: begin by reading the descriptions of the master’s degree programmes. You can find these descriptions further on in this chapter or on the internet pages www.rug.nl/economics/education. This will usually enable you to make an initial decision.

Step 2: be sure to visit the information session for master’s degree programmes. At these sessions, you will find detailed information about the master’s degree programmes and you can ask questions. Brochures are available during information sessions as well as at the Information Desk.

The next information sessions are scheduled as follows:
- Information session for RuG master’s degree programmes: 15 February 2006.
Step 3: read the course descriptions for the master’s programmes in your second selection, and have a look at some of the textbooks mentioned in the bibliographies.

If you have any more questions
- visit the information meetings;
- for general advice, contact a study advisor;
- for more specific questions about the content of a master’s programme, make an appointment to see the programme coordinator;
- for questions about the admission procedure, contact the Admissions Office or go to http://www.rug.nl/economics/education/masterStudies/index;
- for questions about a specific course, contact the lecturer;
- alternatively, get in touch with a senior student.

Addresses can be found in section D14, or you can visit one of the website mentioned above.

Coordinators
A programme (or profile) coordinator usually also coordinates the equivalent profile in the ‘old’ (doctoraal) programme. See the programme descriptions for the names and e-mail addresses of the directors and coordinators for the bachelor’s and master’s degree programmes.
B5.2 MSc Econometrics, Operations Research and Actuarial Studies  
– Specialization Econometrics

B5.2.1 Programme description

**Director/coordinator:** dr. C. Praagman, WSN 251, 050-363 7076, c.praagman@rug.nl
**Secretary:** mrs. E.S. Bennink-Bambang Oetomo, WSN 260, 050-363 3460, e.s.bannink-rug.nl
**Study advisor(s):** drs. J. Karssies, studyadvisors-eco@rug.nl
**Information event(s):** see B5.1.2

**Objectives and content**

The study in Econometrics, Operations Research and Actuarial Studies aims at the description and analysis of problems from economics, management and related area’s by mathematical models. Acquiring a research oriented attitude on the one hand, and knowledge of the most important models used on the other form the main ingredients, together with the ability to transform the outcome of the models in relevant results for the application field.

The Specialization Econometrics especially is concerned with interpretation of observed (economic) data. The data are modelled in order to find or verify relations between them, either for simulation or forecasting, or for policy decisions.

Traditionally macroeconomics is an important field of application for econometrics. Modern econometrics, however, also considers applications in other fields like financial economics, marketing or consumer behavior. The curriculum consists of two advanced econometric courses, one course to be chosen from the complete set of courses for the master of Econometrics, Operations Research and Actuarial Studies, one course in quantitative economics and a master’s thesis. The topic of the master’s thesis has to be in the field of econometrics, statistics or mathematical economics.

**Future working areas**

Graduated econometricians generally have no problem in finding a job. Acquiring a Ph.D. position is a possibility, not only in econometrics, but also in economics, statistics, management sciences or one of the social sciences. Financial institutions like banks, insurance companies and pension funds have employed a large percentage of econometricians recently, in addition to the more traditional institutions like the CBS and the government.
B5.2.2 Programme of study

core programme Econometrics

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electives Econometrics, Operations Research & Actuarial Studies

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B5.2.3 Regulations

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<td>Elective courses</td>
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<td>Entry requirement master</td>
<td>Bachelor’s degree Econometrics (RuG) including Specialization Course Econometric Methods, or another bachelor’s degree with a comparable level of mathematics, statistics, econometrics and academic skills and attitude</td>
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### Provisional admission master

≥ 150 of the bachelor’s degree programme including Specialization Course Econometric Methods

### Note: provisional admission admission can lead to problems in your planning

The 1st semester of the master (nearly) consists of only compulsory courses. Combined with (more than one) bachelor’s courses in the 1st semester it can lead to considerable delay.

### Entry requirements master’s thesis

Bachelor’s degree and ≥ 20 EC of master’s courses
B5.3 MSc Econometrics, Operations Research and Actuarial Studies
– Specialization Operations Research

B5.3.1 Programme description

Director/coordinator: dr. C. Praagman, WSN 251, 050-363 7076, c.praagman@rug.nl
Secretary: mrs. E.S. Bennink-Bambang Oetomo, WSN 260, 050-363 3460, e.s.bannink-rug.nl
Study advisor(s): drs. J. Karssies, studyadvisors@eco.rug.nl
Information event(s): see B5.1.2

Objectives and content
The study in Econometrics, Operations Research and Actuarial Studies aims at the
description and analysis of problems from economics, management and related
area’s by mathematical models. Acquiring a research oriented attitude on the one
hand, and knowledge of the most important models used on the other hand form the
main ingredients, together with the ability to transform the outcome of the models in
relevant results for the application field.
The Specialization Operations Research especially is concerned with decision
problems on logistics and finance, like vehicle routing, time schedules for railway
systems, supply management, production planning, service planning, queueing,
investment, portfolio management or asset liability management. Both deterministic
and stochastic methods are used. The curriculum consists of two advanced
operations research courses, one course to be chosen from the complete set of courses
for the master of Econometrics, Operations Research and Actuarial Studies, one
course in quantitative economics and a master’s thesis. The topic of the master’s
thesis has to be in the field of operations research.

Future working areas
Graduates in operations research generally have no problem in finding a job.
Acquiring a Ph.D. position is an option, not only in operations research, but also in
economics, management science or one of the social sciences. Almost all big
companies employ operations research experts. Hospitals, TNO, State departments
like Rijkswaterstaat use OR graduates for policy development and advise.
B5.3.2 Programme of study

core programme Operations Research

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electives Econometrics, Operations Research & Actuarial Studies

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B5.3.3 Regulations

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<th>Approval master programme</th>
<th>Contact the director, dr. C. Praagman</th>
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<tr>
<td>Moment of intake</td>
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<td>Elective courses</td>
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<tr>
<td>Entry requirement master</td>
<td>Bachelor’s degree Econometrics (RuG) including Specialization Course Econometric Methods, or another bachelor’s degree with a comparable level of mathematics, statistics, econometrics and academic skills and attitude.</td>
</tr>
<tr>
<td>Provisional admission master</td>
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<tr>
<td>Entry requirements master’s thesis</td>
<td>Bachelor’s degree and $\geq 20$ EC of master’s courses</td>
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</table>
B5.4 MSc Econometrics, Operations Research and Actuarial Studies
   – Specialization Actuarial Studies

B5.4.1 Programme description

**Director/coordinator:** dr. C. Praagman, WSN 251, 050-363 7076, c.praagman@rug.nl
**Secretary:** mrs. E.S. Bennink-Bambang Oetomo, WSN 260, 050-363 3460, e.s.bannink-rug.nl
**Study advisor(s):** drs. J. Karssies, studyadvisors@eco.rug.nl
**Information event(s):** see B5.1.2

**Objectives and content**
The study in Econometrics, Operations Research and Actuarial Studies aims at the description and analysis of problems from economics, management and related area's by mathematical models. Acquiring a research oriented attitude on the one hand, and knowledge of the most important models used on the other hand form the main ingredients, together with the ability to transform the outcome of the models in relevant results for the application field.
The Specialization Actuarial Studies especially is concerned with topics related to insurance: life insurance, risk insurance and reinsurance. Insurance is closely related to investment strategies, social security, negotiations between employers and employees on pensions etc. The intrinsic uncertainties in the field make tools like econometrics and statistics indispensable.
The curriculum consists of two advanced actuarial courses, one course to be chosen from the complete set of courses for the master of Econometrics, Operations Research and Actuarial Studies, one course in quantitative economics and a master's thesis. The topic of the master’s thesis has to be in the field of actuarial science.

**Future working areas**
Graduates in operations research generally have no problem in finding a job. Acquiring a Ph.D. position is an option, not only in actuarial science, but also in econometrics, economics, management science or one of the social sciences. Financial institutions like banks, insurance companies and pension funds are likely employers for graduates in actuarial studies. The ‘Actuarieel Instituut’ (Actuarial Institute) offers a additional courses for those who want to become an actuary. Completion gives the right to carry the title ‘Actuaris AG’ (certified by the ‘Actuarieel Genootschap’; title: ‘AG’ behind your name).
B5.4.2 Programme of study

core programme Actuarial Studies

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electives Econometrics, Operations Research & Actuarial Studies

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B5.4.3 Regulations

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</table>
Note: provisional admission can lead to problems in your planning. The 1st semester of the master (nearly) consists of only compulsory courses. Combined with (more than one) bachelor’s courses in the 1st semester it can lead to considerable delay.

| Entry requirements master’s thesis | Bachelor’s degree and ≥ 20 EC of master’s courses |
B5.5  MSc Economics – Specialization Economic Policy

B5.5.1 Programme description

Director: vacancy
Secretary: WSN 545, mrs. E.M. Baars-Drent, 050-363 7018, e.m.baars@rug.nl and mrs. H. van der Vleuten, 050-363 3740, h.c.w.e.van.der.vleuten@rug.nl
Coordinator: dr. J.P. Elhorst, WSN 550, 050-363 3893, j.p.elhorst@eco.rug.nl
Study advisor(s): drs. J. Karssies, studieadviseurs-eco@rug.nl
Information event(s): see B5.1.2

Objectives and content
The specialization Economic Policy of the MSc programme in Economics offers a practical and theoretical foundation for any profession in this field. The international character of the programme is demonstrated through the medium of English as language of communication and the use of interesting international literature. Apart from topical international textbooks, the different courses also use articles from recent journals in order to be in touch with the latest developments.

The graduate will gain knowledge of the most relevant subjects in the field of Economics and Economic Policy (latest views, methods, techniques, theories, and their interrelations). The programme has a clear structure and coherence. During the bachelor’s degree programme in Economics the student is required to follow the Specialization Course Political Economics. During the MSc programme in Economics the students follow the two compulsory courses Public Economics and Markets and Competition, 10 EC must be elected from the courses offered by the study programme, and 10 EC can be elected more freely. Finally, the student must write and defend an extensive MSc thesis of 20 EC. The level of graduates comes close to the level of a first year Ph.D student in the NAKE programme.

The focus on both theory and practice prepares the students for professional life. First, the students are taught high-grade general economic theory, which is essential for any profession in the field of policy or research. Secondly, the curriculum concentrates on the application of theory into practice. At the end of the MSc programme in Economics the students are required to defend their master’s thesis during a colloquium, which is part of an informal colloquium series for staff. In this way the students will gain research experience.

Future working areas
Economists are employed in many different types of companies, institutions and organisations. Some examples of career opportunities for graduates:

- Nma, the Netherlands Competition Authority;
- government: General economists work at all ministries, in particular at the Ministry for Economic Affairs (including the CPB Netherlands Bureau for Economic Policy Analysis), Ministry of Finance, Ministry of Social Affairs and Employment, and the Ministry for Housing, Regional Development and the Environment;
- local authorities such as provinces and municipalities;
• universities in the Netherlands and abroad;
• international organisations like the OECD and the EU;
• institutions for applied research, such as the CBS (Statistics Netherlands), the Algemene Rekenkamer (the Netherlands Court of Audit), TNO, and the Social and Cultural Planning Office.

General economists are employed in various areas of work:
• scientific or policy-orientated research (CPB, CBS, OECD);
• policy-making: mainly in large organisations;
• applied research (NEI, TNO, and research bureaus);
• education;
• journalism.

B5.5.2 Programme of study

core programme Economic Policy

<table>
<thead>
<tr>
<th>sem</th>
<th>course title</th>
<th>code</th>
<th>EC</th>
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electives MSc Economics

<table>
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<th>nr</th>
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<tbody>
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<td>11</td>
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<tr>
<td>2.1</td>
<td>Applied (Micro-)Econometrics</td>
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<tr>
<td>2.1</td>
<td>Spatial &amp; Transport Economics</td>
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<td>10</td>
<td>O</td>
<td>74</td>
</tr>
<tr>
<td>2.1-2</td>
<td>Public Choice &amp; Law and Economics</td>
<td>EWM041A10</td>
<td>10</td>
<td>O</td>
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B5.5.3 Regulations

<table>
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<tr>
<th>Approval master programme</th>
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<tbody>
<tr>
<td>Moment of intake</td>
<td>September 1st (later is possible but not recommended due to programme structure)</td>
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<tr>
<td>Entry requirement master</td>
<td>Bachelor’s degree Economics including Specialization Course Political Economics</td>
</tr>
<tr>
<td>Provisional admission master</td>
<td>≥ 150 EC of the bachelor’s degree programme including Specialization Course Political Economics. As of September 2007 the entry requirement will be ≥ 165 EC (including compulsory courses).</td>
</tr>
<tr>
<td>Note: provisional admission admission can lead to problems in your planning</td>
<td>The 1st semester of the master (nearly) consists of only compulsory courses. Combined with (more than one) bachelor’s courses in the 1st semester it can lead to considerable delay.</td>
</tr>
<tr>
<td>Entry requirements master’s thesis</td>
<td>Bachelor’s degree and ≥ 20 EC of master’s courses</td>
</tr>
</tbody>
</table>
B5.6 MSc Economics – Specialization Monetary Economics

B5.6.1 Programme description

**Director:** vacancy

**Secretary:** WSN 545, mrs. E.M. Baars-Drent, 050-363 7018, e.m.baars@rug.nl and mrs. H. van der Vleuten, 050-363 3740, h.c.w.e.van.der.vleuten@rug.nl

**Coordinator:** dr. J.P. Elhorst, WSN 550, 050-363 3893, j.p.elhorst@eco.rug.nl

**Study advisor(s):** drs. J. Karssies, studieadviseurs-eco@rug.nl

**Information event(s):** see B5.1.2

**Objectives and content**

The objectives and the structure of the specialization Monetary Economics of the master’s degree programme in Economics are identical to those of the specialization Economic Policy. The content, however, is essentially different. In the first place, the student is required to follow the preparatory specialization course Financial Intermediation during the bachelor’s degree programme in Economics. Secondly, during the master’s degree programme students must follow two compulsory courses, Macroeconomics IV and Money and Banking. Finally, the master’s thesis of 20 EC has to be in the field of Monetary Economics.

**Future working areas**

Monetary economists are employed in many different types of companies, institutions and organisations. Many monetary economists work in financial institutions. Some examples of career opportunities for graduates:

- financial institutions: banks, pension funds and insurance companies are important employers of general economists. Examples are: De Nederlandsche Bank (the Netherlands Central Bank), the European Central Bank, commercial banks such as ABN-AMRO, ING and Rabobank, and insurance companies like AEGON;
- government: general economists work at all ministries, in particular at the Ministry for Economic Affairs (including the CPB Netherlands Bureau for Economic Policy Analysis), Ministry of Finance, Ministry of Social Affairs and Employment, and the Ministry for Housing, Regional Development and the Environment;
- companies such as Shell, Unilever, Philips and Gasunie;
- universities in the Netherlands and abroad;
- international organisations like the OECD, the IMF, the World bank, the EU, and the European Central Bank.

Monetary economists are employed in various areas of work:

- scientific or policy-orientated research (DNB, CPB, OECD, IMF);
- policy-making: mainly in large organisations;
- management: especially in businesses.
### B5.6.2 Programme of study

#### core programme Monetary Economics

<table>
<thead>
<tr>
<th>sem</th>
<th>course title</th>
<th>code</th>
<th>EC</th>
<th>C/O</th>
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<tbody>
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<td>1.1-2</td>
<td>Macroeconomics IV</td>
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<td>41</td>
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<td>1.1-2</td>
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<tr>
<td>2.1-2</td>
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<tr>
<td>2.1-2</td>
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<td>O</td>
<td></td>
</tr>
<tr>
<td>2.1-2</td>
<td>course(s) MSc IE&amp;B</td>
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<td>10</td>
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<td>2.1-2</td>
<td>course(s) BSc Ectrcs (2nd or 3rd year)</td>
<td>EWM010A10</td>
<td>10</td>
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#### electives MSc Economics

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<tr>
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<td>O</td>
<td>2</td>
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### B5.6.3 Regulations

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</tr>
</tbody>
</table>
B6 Other master programmes

B6.1 Top Master
This is a two-year master degree programme oriented towards a more research-oriented master degree, with potential access to a Ph.D. programme. In principle, all students who completed a bachelor’s degree or an ‘old doctoraal’ programme in any area of Economics or Management and Organization, including International Economics and Business or International Business and Management can apply for the programme.

Further information on this programme is available at the website of the research school SOM (http://som.rug.nl/) or can be obtained by contacting the managing director of the research school at A.C.Koning@rug.nl (see also part D8).
B7 Doctoraalopleidingen

B7.1 Inleiding

B7.1.1 Afronding doctoraalopleidingen
Afstuderen onder de ‘oude structuur’ (doctoraal) is mogelijk tot 1 september 2007.
Alle studenten die hun eerste jaar zijn begonnen vóór september 2002, de
propedeuse ‘oude structuur’ hebben behaald en niet zijn overgestapt op de bachelor-
masterstructuur zijn op dit moment ‘oude structuur’-/doctoraalstudenten.
Studenten oude structuur die de oude opleiding willen afmaken, kunnen in de
substitutietabellen (zie B7.2 en B7.3) vinden welk nieuw vak ze kunnen volgen als
vervanging van een oud vak.
Studenten die onder de oude structuur afstuderen worden doctorandus en krijgen
een doctoraalbul in het Nederlands en in het Engels. De Engelstalige bul maakt
duidelijk dat deze bul gelijkwaardig is aan een masterbul (“The holder of this
certificate has thereby been awarded the title of Master of Science”).

B7.1.2 Studiepunten
De zwaarte van vakken wordt uitgedrukt in European Credits (EC). Eén EC staat
voor 28 studie-uren (een studiepunt (stp) telde 40 uren, dus: 1 EC = 0,7 stp.) Een
studiejaar telt 60 EC. Het vakkenaanbod is gebaseerd op de nieuwe vakken onder de
bachelor-masterstructuur (bama) met de daarbij behorende zwaarte in EC. Studenten
die onder de oude structuur willen afstuderen, kiezen nieuwe vakken die qua
inhoud vergelijkbaar zijn met de oude vakken. In de meeste gevallen ontstaan kleine
verschillen in zwaarte. Veel nieuwe vakken zijn 5 of 10 EC terwijl veel oude derde en
vierdejaarsvakken voor 4 of 8 stp (dit is omgerekend 11,4 EC) in het programma
stonden. In zulke gevallen mag het tekort of overschot aan EC worden verrekend
met de keuzeruimte of soms met de zwaarte van de scriptie. Reeds behaalde vakken
waarvan de studielast nog uitgedrukt werd in studiepunten zijn door het onderwijs-
bureau omgezet in EC, met één decimaal achter de komma. Op programmaniveau
wordt het totaal aantal EC afgerond naar gehelen. Een doctoraalprogramma beslaat
in totaal tenminste 180 EC (de propedeuse is een aparte studiefase en wordt dus
buiten beschouwing gelaten).

B7.1.3 Gevolgen invoering bachelor-/masterstructuur
Studenten die willen afstuderen onder de oude structuur krijgen ook te maken met
de herprogrammering van het onderwijs door de invoering van de BaMa-structuur.
Veel namen van vakken zijn veranderd en in een andere periode geroosterd, mede
als gevolg van de jaarindeling in semesters. Hierdoor kan het lastig zijn om een
correct doctoraalprogramma te plannen. In de substitutietabellen (B7.2 en 7.3) is
aangegeven aan wie je de planning van je doctoraalprogramma kunt voorleggen.

B7.1.4 Overstap naar bachelor- en masteropleidingen
Desgewenst maak je de overstap van de oude structuur naar het bachelor/master
programma. In het overeenkomende bachelorprogramma geeft de reeds behaalde
propedeuse meestal toegang tot het tweede studiejaar. Daarnaast kunnen reeds
behaalde doctoraalvakken mogelijk als substitutie gelden voor vakken van de post-propedeutische studiefase. Voor een enkel programma is een substitutietabel opgesteld (zie desbetreffende opleiding). Alvorens de overstap te maken dien je een afspraak te maken met een studieadviseur, o.a. ten behoeve van eventuele formaliteiten. N.B.: zodra je ingeschreven staat voor een bachelor- of masteropleiding kun je nooit meer terug naar een doctoraalopleiding.
B7.2 Doctoraal Econometrie en Operationele Research

B7.2.1 Overgangsregeling

Algemeen:
- Uiterlijk 31 augustus 2007 dient aan alle eisen van het doctoraal examen voldaan te zijn.
- Studieinschrijving voor Econometrie en Operationele Research.
- Propedeuse: totaal aantal studiepunten behaald in de propedeuse heeft geen gevolgen voor de studiebelasting van het doctoraal ($2^n + 3^n + 4^n \geq 180$ EC).
- De totale studiebelasting van de te behalen studieonderdelen kan afwijken van 180 EC door gebruik van studieonderdelen uit onderwijsprogramma’s van 2003 en later. Een tekort of een overschot kan, na goedkeuring van de examencommissie FEW, gebruikt worden in de keuzeruimte of na afstemming met de scriptiebegeleider verrekend worden met de afstudeeropdracht.
- Een vakkenpakket waarin je andere dan onderstaande alternatieven wilt opnemen moet je eerst voorleggen aan de onderwijscoördinator van je opleiding.
- Eventuele vrije keuzeruimte mag voor maximaal 11 EC met postpropedeutische vakken buiten de FEW worden gevuld.
- **Informatie en advies:** opleidingsdirecteur, dr. C. Praagman, WSN 251.

Programma 2e, 3e en 4e jaar

Het aantal EC staat per vak tussen haakjes

<table>
<thead>
<tr>
<th>Tweede jaar</th>
<th>Alternatieven in bachelorprogramma’s</th>
</tr>
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<tbody>
<tr>
<td><strong>Programma 2003 en eerder</strong></td>
<td><strong>Alternatieven in bachelorprogramma’s</strong></td>
</tr>
<tr>
<td>Matrices, grafen en convexiteit (4,3)</td>
<td>Matrices, Graphs and Convexity (4)</td>
</tr>
<tr>
<td>Statistiek 2a (4,3)</td>
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<tr>
<td>Marketing 1 (5,7)</td>
<td>Marketing 1 for E&amp;B (6)</td>
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<td>Programmeren</td>
<td>Programming 1 (5)</td>
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<tr>
<td>Statistiek 2b (4,3)</td>
<td>Statistics 2b (4)</td>
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<tr>
<td>Infomticatoep. in de Econometrie (4,3)</td>
<td>Programming 2 (5)</td>
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<tr>
<td>Inleiding Operationele Research (5,7)</td>
<td>Introduction to Operations Research (5)</td>
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<tr>
<td>Inleiding Wiskundige Economie (5,7)</td>
<td>Introduction to Mathematical Economics (5)</td>
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<td>Difference and Differential Equations (5)</td>
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<td>Inleiding Econometrie (5,7)</td>
<td>Introduction to Econometrics (5)</td>
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<tr>
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<td>Finance Theory and Modelling (6)</td>
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<tr>
<td>Inleiding Actuariaat (4,3)</td>
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### Derde en vierde jaar

#### Afstudeerrichting Econometrie

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<td>Stochastische Modellen (5,7)</td>
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<td>Microeconometrie (8,6)</td>
<td>Microeconometrics (10)</td>
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<td>Speltheorie en Industriële Organisatie (8,6)</td>
<td>Game Theory (5)</td>
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<tr>
<td>Toegepaste Alg. Evenwichtsanalyse (5,7)</td>
<td>Advanced Industrial Organization (10) of Researchlab Econometrics (10)</td>
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<td>Econometrische Methoden (5,7)</td>
<td>Spec. Course Econometric Methods (5)</td>
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<td>Keuze</td>
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Afstudeeropdracht (minimaal 20 EC)

#### Afstudeerrichting Operationele Research

<table>
<thead>
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<th>Alternatieven in bachelor-/ masterprogramma’s</th>
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<td>Kwantitatieve Financiering (8,6)</td>
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<td>Toegepaste OR (11,4)</td>
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<td>Stochastische Programmeren (5,7)</td>
<td>Stochastic Programming (10)</td>
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Afstudeeropdracht (minimaal 20 EC)

#### Afstudeerrichting Actuariaat

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<td>Levensverzekeringen 1 (5,7)</td>
<td>Life Insurance (gedeeltelijk) (10)</td>
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<td>Levensverzekeringen 2 (8,6)</td>
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<tr>
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<td>Stochastic Models (6)</td>
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<tr>
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<td>Spec. Course Generalized Linear Models (5)</td>
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Afstudeeropdracht (minimaal 20 EC)
B7.3 Doctoraal Economie – profiel Algemene Economie

B7.3.1 Overgangsregeling

Algemeen

- Uiterlijk 31 augustus 2007 dient aan alle eisen van het doctoraal examen voldaan te zijn.
- Studieinschrijving voor doctoraalopleiding Economie.
- Propedeuse: totaal aantal studiepunten behaald in de propedeuse heeft geen gevolgen voor de studiebelasting van het doctoraal ($2^e + 3^e + 4^e$ jaar $\geq 180$ EC)
- De totale studiebelasting van de te behalen studieonderdelen kan afwijken van 180 EC door gebruik van studieonderdelen uit onderwijsprogramma’s van 2003 en later. Een tekort of een overschot kan, na goedkeuring van de examencommissie FEW, gebruikt worden in de keuzeruimte of na afstemming met de scriptiebegeleider verrekend worden met de afstudeeropdracht.
- Een vakkenpakket waarin je andere dan onderstaande alternatieven wilt opnemen moet je eerst voorleggen aan de onderwijscoördinator van je opleiding.
- Eventuele vrije keuzeruimte mag voor maximaal 20 EC met postpropedeutische vakken buiten de FEW worden gevuld.
- **Informatie en advies**: opleidingscoördinator, dr. J.P. Elhorst, WSN 550.

Programma 2e, 3e en 4e jaar

Het aantal EC staat per vak tussen haakjes

<table>
<thead>
<tr>
<th>Studieonderdelen</th>
<th>Alternatieven in bachelorprogramma’s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tweede jaar</strong></td>
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<tr>
<td>Marketing 1 (5,7)</td>
<td>Marketing 1 (eerste jaar) (6)</td>
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<tr>
<td>Overheidsfinanciën (5,7)</td>
<td>Openbare Financiën (6)</td>
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<td>Statistiek 2 (4,3)</td>
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<td>Vaardigheden 4 (1,4)</td>
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<td>Excel (1,4)</td>
<td>ICT 1 (eerste jaar) (3)</td>
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<tr>
<td>Macro-economie 2 (5,7)</td>
<td>Macroeconomics 2 (6)</td>
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<tr>
<td>Economische geschiedenis (4,3)</td>
<td>Economic History (bachelor) (6)</td>
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<tr>
<td>Markt en recht (4,3)</td>
<td>Recht (3)</td>
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<tr>
<td>Financiering + Belegging 2 of IB 1: Strat. Management (5,7)</td>
<td>Financiering 2 of Management 2: Strategisch Management (6)</td>
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<tr>
<td>Micro-econ. 2: Industrial Econ. (5,7)</td>
<td>Microeconomie 2 (6) of Int. Industr. Econ. (6)</td>
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<tr>
<td>Int. Econ. 2: Int. Monetary Econ. (5,7)</td>
<td>Int. Econ. 2: International Monetary Econ. (6)</td>
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<tr>
<td>Methodologie (4,3)</td>
<td>Keuzeruimte (4,3)</td>
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### Derde en vierde jaar

Uit drie van onderstaande vakgebieden moet 20 EC worden gekozen, waarbij in elk geval een vak van 11,4 EC is opgenomen
Keuze 40 EC, waarvan maximaal 20 buiten de FEW
Afstudeeropdracht (minimaal 20 EC)

<table>
<thead>
<tr>
<th>Micro-economie</th>
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<tbody>
<tr>
<td>Micro-ec.: Theorie en Empirie (11,4)</td>
<td>• Markets and Competition (10)</td>
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<tr>
<td>Een bijvak, keuze uit:</td>
<td>• Environmental Economics (5)</td>
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<tr>
<td>• Marktwerving en Indust. Org. (8,6)</td>
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<td>• Milieu-economie (5,7 of 11,4)</td>
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<tr>
<th>Macro-economie</th>
<th>Macroeconomics 3 (6)</th>
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<tbody>
<tr>
<td>Macro-economie en Geldtheorie (11,4)</td>
<td>• Spec. Course Financ. Intermediation (10)</td>
</tr>
<tr>
<td>Keuze uit:</td>
<td>• Spec. Course Political Economics (10)</td>
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<tr>
<td>• International Banking (8,6)</td>
<td>• Wordt niet meer gegeven</td>
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<tr>
<td>• Macroecon. Politiek in de EMU (8,6)</td>
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<tr>
<td>• Int. Comp. and Innov. (8,6)</td>
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<tr>
<th>Internationale Economie</th>
<th>Int. Economies 3: Int. Rivalry (11,4)</th>
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<tr>
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<td>Int. Economies 3: Int. Rivalry (10)</td>
</tr>
<tr>
<td>Keuze uit:</td>
<td>Mastervak IEB (10)</td>
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<tr>
<td>• Int. Mon. and Fin. Relations (8,6)</td>
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<tr>
<td>• Int. Comp. and Innov. (8,6)</td>
<td>Wordt niet meer gegeven</td>
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<tr>
<td>• Int. Financial Management (8,6)</td>
<td>Int. Financial Management (5) (FBK)</td>
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<tr>
<td>• International Banking (8,6)</td>
<td>Spec. Course Financ. Intermediation (10)</td>
</tr>
<tr>
<td>• Int. Institutions and Business (8,6)</td>
<td>IB 3: International Strat. and Innov. (10)</td>
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<tr>
<td>• Macroecon. Politiek in de EMU (8,6)</td>
<td>Spec. course Political Economics (10)</td>
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<tr>
<th>Openbare financieren</th>
<th>Public Economics (10)</th>
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<tbody>
<tr>
<td>Financieel Overheidsbeleid (11,4)</td>
<td>Public Choice &amp; Law and Economics</td>
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<tr>
<td>Keuze uit:</td>
<td>Spec. Course Political Economics (10)</td>
</tr>
<tr>
<td>• Macroecon. Politiek i/d EMU (8,6)</td>
<td>Dutch Public Finance (voorheen Economie van de Lagere Overheden) (5)</td>
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<td>• Economie van de Lagere Overheden (8,6)</td>
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<thead>
<tr>
<th>Ruimtelijke economie</th>
<th>Spatial Economics (6)</th>
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<tr>
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<tr>
<td>Keuze uit:</td>
<td>Labour Economics (5)</td>
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<tr>
<td>• Landbouwconomie (8,6)</td>
<td>Spatial/Transport Economics (5 of 10)</td>
</tr>
<tr>
<td>• Int. Institutions and Business (8,6)</td>
<td>Wordt niet meer gegeven</td>
</tr>
<tr>
<td>• Economie van de Lagere Overheden (8,6)</td>
<td>Wordt niet meer gegeven</td>
</tr>
<tr>
<td>• Economie van de Lagere Overheden (8,6)</td>
<td>Dutch Public Finance (voorheen Economie van de Lagere Overheden) (5)</td>
</tr>
</tbody>
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<tr>
<th>Economische Geschiedenis</th>
<th>Economic History (master) (10)</th>
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<tbody>
<tr>
<td>Economic History: Industrialisation and Globalisation (11,4)</td>
<td></td>
</tr>
<tr>
<td>Keuze uit:</td>
<td>International Industrial Economics (6)</td>
</tr>
<tr>
<td>• Int. Competitiveness and Innov. (8,6)</td>
<td>IB 3: Int. Strategy and Innovation (10)</td>
</tr>
<tr>
<td>• Int.Institutions and Business (8,6)</td>
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</tbody>
</table>
Part C – Course descriptions

The numbers of the courses correspond to the numbers you find in the programmes of study in part B. You can find the course descriptions at www.rug.nl/ocasys as well.

1. **Advanced Industrial Organization**  
   EWM026A10
   
   **contact**  
   dr. M.A. Haan

   **lecturer**  
   dr. M.A. Haan

   **programmes**  
   Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (electives Ectrcs, OR & AS) year 4

   **language**  
   English

   **period**  
   1.1-2

   **EC**  
   10

   **format**  
   lectures

   **assessment**  
   oral exam, assignment(s)

   **objective**  
   To bring students up-to-date with the state-of-the-art in industrial organization theory. Upon completion of the course, students should be able to read, comprehend, and critically assess current articles in leading journals in this field (RAND Journal of Economics, Journal of Industrial Economics, International Journal of Industrial Organization).

   **content**  
   Using the rigorous mathematical tools of game theory, Industrial Organization studies the strategic interaction of firms on markets, yielding a body of research that is both intellectually challenging and directly relevant for policy makers. This course will cover the latest developments in this field. Topics include formal models of oligopoly theory, product differentiation, price discrimination, advertising, research and development, models of asymmetric information, and network effects. The course will also include a substantial amount of auction theory.

   **literature**  
2. **Applied (Micro-)Econometrics**  

**contact** prof. dr. P. Kooreman  
**lecturer** prof. dr. P. Kooreman  
**programme** MSc Economics (electives MSc Economics) year 4  
**language** English  
**period** 2.1  
**EC** 10  
**format** combined lectures/tutorials  
**assessment** to be announced

**objective** The purpose of this course is to acquire a broad knowledge of modern econometric methods. The course also aims to develop the capability to choose appropriate data and econometric methods to address a given empirical economic question.

**content** The course covers modern econometric methods on the basis of an intermediate/advanced textbook. In addition, recent empirical articles from academic journals are discussed to illustrate the use of the econometric methods. Examples of applications include the measurement of consumers’ responses to price incentives, the degree of competition in oligopoly markets, and the effectiveness of labor market policies.

**literature**  

3. **Applied Statistics**  

**contact** prof. dr. A.G.M. Steerneman  
**lecturer** prof. dr. A.G.M. Steerneman  
**programmes** Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (electives Ectrcs, OR & AS) year 4  
**language** English  
**period** 1.1-2  
**EC** 10  
**format** lectures  
**assessment** written exam

**objective** The objective of the course is to learn how to apply statistics in actual practice and to be a junior statistical consultant.

**content** The course is about genuine statistical applications. Some practical statistical skills will be developed and attention will be paid to relevant sources. Using concrete cases the following issues will be addressed: specification of objectives, initial or explanatory data analysis, problems related to dimensionality and datamining, reflection on model choice assumptions, interpretation of results, the interplay between results and revision of original objectives, etc. The students have to acquire
a real case. They will give presentations and have to write a professional report. Special attention will be paid to how to communicate statistical results and to relevant statistical theory.

literature · To be announced

4. **Bachelor’s Thesis Econometrics**  
   **contact** dr. C. Praagman  
   **lecturers** dr. C. Praagman, diverse docenten  
   **programme** BSc Econometrics (core programme) year 3 compulsory  
   **language** English  
   **period** 2.2  
   **EC** 10  
   **format** thesis  
   **assessment** individual assessment  
   **prerequisite(s)** First and second year of the Bachelor, Dynamic Econometrics and the course treating the subjects of the bachelor thesis.

   **objective** The student shows that he or she has obtained the knowledge, attitude and skills as specified in the Aim of the Bachelor programme Econometrics.

   **content** The student writes a scientific report on a supervised individual routine research project, on a subject related to one of the third year courses.

5. **Bachelor’s Thesis Economics**  
   **contact** dr. G.H. Kuper  
   **programme** BSc Economics (core programme) year 3 compulsory  
   **language** English  
   **period** 2.1-2  
   **EC** 10  
   **format** meeting(s)  
   **assessment** individual assessment  
   **objective** Individual assignment

   **objective** The student demonstrates to have sufficient scientific basis to write a theoretically founded thesis on his/her own.

   **content** To be determined.

   **remarks** See also the ‘Reglement Afstudeerwerkstukken’ and the ‘Handleiding Afstudeerwerkstukken’.
6. **Difference- & Differential Equations**

**contact** dr. G.K. Immink  
**lecturer** dr. G.K. Immink  
**programme** BSc Econometrics (core programme) year 2 compulsory  
**language** English  
**period** 1.2  
**EC** 5  
**format** lectures and tutorials  
**assessment** assignment(s), written exam

**objective** Familiarize the students with some important concepts and methods in the theories of difference and differential equations and their applications to economic models.

**content** Basic properties of solutions of both linear and nonlinear difference and differential equations, such as asymptotic (long term) behaviour and stability; linearization of nonlinear difference and differential equations; a detailed analysis of linear systems with constant coefficients; examples of dynamic economic models, both in discrete and in continuous time (cobweb models, growth models, etc.).


7. **Dutch Public Finance**

**contact** dr. M.A. Allers  
**lecturers** dr. M.A. Allers, prof. dr. C.G.M. Sterks  
**programme** BSc Economics (electives BSc Economics) year 3  
**language** English  
**period** 2.1-2  
**EC** 5  
**format** workshop(s)  
Each week 2 seminars of 2 hours  
**assessment** individual assessment  
Individual paper, individual presentation and group participation (followed by an oral examination in case of bad performance and/or insufficient knowledge of the prescribed literature)

**objective** To learn to apply micro- and macroeconomic insights to the Dutch public sector with special attention to fiscal relations between state and local government and local government economics.
content

The public finance course in the second year concentrated on micro-economic foundations, paid hardly any attention to macro-economic aspects and focussed mainly on central government. Moreover all practical examples and the institutional settings originated from the United States of America.

In this course the practical and institutional setting is Dutch. Attention is paid to the Dutch budget infrastructure (legal regulations and institutions). Furthermore much attention is paid to local government finance and macroeconomic policy issues.

The main local government subjects are: The financial relations between different layers of government, fiscal equalization, general and specific grants and local taxes and spending. The macroeconomic policy issues concentrate on the central government Budget Memorandum, fiscal policy rules and the key macro-economic figures for the Dutch economy as published by the Central Planning Bureau (CPB).

literature

· Some additional comparative OECD papers on fiscal relations across levels of government and local taxation and material on Dutch macroeconomic policy and budget infrastructure.

Dynamic Econometrics

contact dr. C. Praagman
lecturer dr. C. Praagman
programmes BSc Econometrics (core programme) year 3 compulsory, Courses open to Exchange Students year 3
language English
period 1.2
EC 7
format lectures and tutorials
assessment assignment(s), written exam

objective The aim of the course is for students to obtain the necessary skills and knowledge to work with models for serially correlated data, both scalar and vectorial. At the end of the course the student should have acquired sufficient theoretical understanding of ARMA, ARIMA, ADL, SEM, VAR and (V)ECM models. The student has to be able to formulate hypotheses on real life data and to set up a simple investigation to verify these hypotheses.
Part C – Course descriptions

**content**
The course consists of three parts. In the first part univariate stationary time series are treated, along with easy extensions. Parallel to this part there is a computer assignment focused on testing for serial correlation and recognition of the correlogram of ARMA processes. The second part treats the Kalman filter, and also includes a computer assignment. The third part treats multivariate problems: ADL, VAR, ECM and SEM. The accompanying computer assignment is on cointegration. During the course the process of doing econometric research is emphasized. An individual research assignment and report conclude the course.

**literature**
- C. Praagman, *Syllabus 'Maximum Likelihood Estimation and the Kalman Filter*

**9. Econometrics for Economics EWB014A06**

**contact**
dr. G.H. Kuper

**lecturer**
dr. G.H. Kuper

**programmes**
BSc Economics (core programme) year 2 compulsory, BSc Economics (core programme) year 3 compulsory

**language**
English

**period**
1.1-2

**EC**
6

**format**
lectures

**assessment**
paper, written exam
Grading is based on a paper

**objective**
The course introduces economics students to the principles of parameter estimation, hypothesis testing and forecasting. Furthermore students require these skills using the econometrics package Eviews and learn how to write an empirical research report by actually doing it.

**content**
This course introduces econometrics using an intuitive approach that begins with an economic model. It emphasizes motivation, understanding, and implementation and shows how economic data are used with economic and statistical models as a basis for estimating key economic parameters, testing economic hypotheses and predicting economic outcomes. Students select a research topic, specify the economic model, design the econometric model, collect data, estimate parameters, test hypotheses and write an applied paper.
10. Economic History (bachelor) EWB015A06

**contact**  
dr. J.P.H. Smits

**lecturer**  
dr. J.P.H. Smits

**programmes**  
BSc Economics (core programme) year 3 compulsory, Courses open to Exchange Students year 3

**language**  
English

**period**  
1.1

**EC**  
6

**format**  
lectures and tutorials

**assessment**  
written exam with essay questions  
Written exam (75%) and essays (25%)

**objective**  
The purpose of this course is to give students insights in the determinants of long-term economic growth. Special attention is paid to the question as to how processes of economic growth, technological change and institutional development are interrelated.

**content**  
Economists are increasingly aware of the fact that the process of economic growth is characterised by path dependency. Choices made by economic actors in the past have a far-reaching influence on the nature and rate of growth in later periods. Economic behaviour which at first sight might seem irrational, can be quite logical when the historical context is taken into account. In our courses we focus on the question as to what are the prime determinants of economic growth. First of all we analyse to what extent economic growth is driven by factor substitution and/or the introduction of new (general purpose) technologies. Furthermore, attention is paid to the institutional context in which the growth process is embedded. This course primarily focuses on the economic development of Europe and the US in the period 1870-present, but comparisons will be made with Latin America and East Asia in order to analyse the differences in institutional contexts in these regions and their impact on the process of economic growth.

**literature**  
11. **Economic History (master)**

**contact**  dr. H.J. de Jong  
**lecturers**  dr. H.J. de Jong, dr. J.P.H. Smits  
**programme**  MSc Economics (electives MSc Economics) year 4  
**language**  English  
**period**  1.1-2  
**EC**  10  
**format**  tutorials  
Assignments and paper presentations  
**assessment**  assignment(s), written exam  
Course participation, assignments and a paper  
**prerequisite(s)**  Economic History (bachelor)  

**objective**  To acquire knowledge at advanced level into long-term processes of economic growth and development.  

**content**  This course deals with selected issues during the period of modern economic growth that is, from the industrial revolution until the present time. Within this time frame a comparison will be made between the nature of the growth process in Western Europe during the 19th and the early 20th century and that of the post World War II experience of the East Asian and Latin American countries. The course focuses on four important topics related to modern economic growth and development: technological progress, institutional development, globalisation and welfare effects/inequality. Pre-1914 globalisation and the interwar backlash both made an important contribution in shaping European institutions such as labour markets, banking and financial systems, and the welfare state. Globalisation and the subsequent nationalistic retrenchment also influenced the economic performance of European countries. The course will address the issue of transferability or replicability of the European experience under different institutional and social conditions.  
This course takes the form of a workshop, which is organised around the discussion of articles in economic journals and book chapters related to the selected subjects. Students are expected to critically present these articles or book chapters and to actively participate in the discussions. In the second part of the course students will prepare and present a paper.  

**literature**  
- To be announced
12. **English Ia for IE&B/Economics**

- **contact** K.B.J. Haines
- **lecturer** K.B.J. Haines

**programmes**
- BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

**language**
- English

**period**
- 1.1
- EC 1

- Small-group teaching
- Participation and General Skills Test (vocabulary, reading, grammar and writing)

**objective**
The course aims to offer support in following the IE&B or Economics programme successfully and to improve students’ oral and written skills to a level that would enable them to function professionally in an international company.

**content**
The programme deals with English for business and academic purposes. This block focuses on productive language skills, which will be trained through a variety of methods in a business and economics context. Grammar and pronunciation will primarily be taught as feedback. The course includes a considerable amount of economic and business jargon.

**literature**
- *Reader English for Students of IE&B*

**remarks**
- Eighty per cent attendance is compulsory.
- Lecturers: to be announced
- Resit: by appointment

13. **English Ib for IE&B/Economics**

- **contact** K.B.J. Haines
- **lecturer** K.B.J. Haines

**programmes**
- BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

**language**
- English

**period**
- 1.2
- EC 1

- Small-group teaching
- Participation and General Skills Test (vocabulary, reading, grammar and writing)
**Part C – Course descriptions**

**14. English Ic for IE&B/Economics**

**objective** The course aims to offer support in following the IE&B or Economics programme successfully and to improve students’ oral and written skills to a level that would enable them to function professionally in an international company.

**content** The programme deals with English for business and academic purposes. This block mainly focuses on oral skills, which will be trained through a variety of methods in a business and economics context. Grammar and pronunciation will primarily be taught as feedback. The course includes a considerable amount of economic and business jargon.

**literature**
- *Reader English for Students of IE&B*

**remarks** Eighty per cent attendance is compulsory.
Lecturer(s): to be announced.
Resit: by appointment.

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**contact** K.B.J. Haines

**lecturer** K.B.J. Haines

**programmes** BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

**language** English

**period** 2.1

**EC** 2

Small-group teaching
Participation (including debates), a General Skills Test (vocabulary, reading and grammar) and a 15-minute presentation

**objective** The course aims to offer support in following the IE&B or Economics programme successfully and to improve students’ oral and written skills to a level that would enable them to function professionally in an international company.

**content** The programme deals with English for business and academic purposes. This block mainly focuses on taking active part in debates and performing a graded presentation, as the culmination of a number of practice presentations. Grammar and pronunciation will primarily be taught as feedback. The course includes a considerable amount of economic and business jargon.
15. **English Id for IE&B/Economics**

**contact**  K.B.J. Haines  
**lecturer**  K.B.J. Haines  
**programmes**  BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory  
**language**  English  
**period**  2.2  
**EC**  3  
- Small-group teaching  
- Participation, in-class written assignment and academic essay.

**objective**  The course aims to offer support in following the IE&B or Economics programme successfully and to improve students’ oral and written skills to a level that would enable them to function professionally in an international company.

**content**  The programme deals with English for business and academic purposes. This block focuses on writing skills for academic purposes. It also comprises an oral defence of a portfolio of work which you have produces throughout the year.

**literature**  
- Reader *English for Students of IE&B.*

**remarks**  Eighty per cent attendance is compulsory.  
Lecturer(s): to be announced.  
Resit: by appointment.

16. **English II for Economics**

**contact**  NN  
**programme**  BSc Economics (core programme) year 2  
**language**  English  
**period**  1.2  
**EC**  6  
**format**  to be announced  
**assessment**  to be announced
17. **Environmental Economics**

**contact**  dr. D. Wiersma  
**lecturer** dr. D. Wiersma  
**programmes** BSc Economics (electives BSc Economics) year 3, Courses open to Exchange Students year 3  
**language** English  
**period** 2.1-2  
**EC** 5  
**format** lectures and class room experiments  
**assessment** written exam  

**objective** The objective of the course is: to make students familiar with economic principles and other analytic tools, which can be applied to environmental problems concerning the behaviour of firms, consumers and government policies; to provide a survey of actual environmental problems and policies.  

**content** The course pays attention to the basic issues of Environmental and Natural Resource Economics. Main subjects are:  
- Economic analysis of the causes of environmental degradation (external effects, property rights and market failure);  
- Economic valuation methods of environmental cost and benefits:goals for environmental management. Criteria: static and dynamic efficiency, sustainability;  
- Markets as allocation procedures for natural resources (fossil energy, solid waste, recycling, water scarcity, fisheries);  
- Market allocation for pollution (The relevance of voluntary negotiations, analysis of policy instruments: standards, pollution charges, markets of emission permits);  
- International dimensions of environmental economics: international cooperation on global environmental problems (acid rain, global warming, ozon layer).  


**remarks** The course is also available for students of other disciplines than Economics.
18. **Finance I**

<table>
<thead>
<tr>
<th><strong>contact</strong></th>
<th>drs. J.A.M.J. Schipperijn</th>
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<tbody>
<tr>
<td><strong>lecturers</strong></td>
<td>dr. ing. N. Brunia, drs. J.A.M.J. Schipperijn, prof. dr. F.M. Tempelaar</td>
</tr>
<tr>
<td><strong>programmes</strong></td>
<td>BSc Econometrics (core programme) year 1 compulsory, BSc Economics (core programme) year 1 compulsory, BSc International Economics &amp; Business (core programme) year 1 compulsory, Courses open to Exchange Students year 3</td>
</tr>
<tr>
<td><strong>language</strong></td>
<td>English</td>
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<tr>
<td><strong>period</strong></td>
<td>2.2</td>
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<td><strong>EC</strong></td>
<td>6</td>
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<tr>
<td><strong>format</strong></td>
<td>lectures and tutorials</td>
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<tr>
<td><strong>assessment</strong></td>
<td>assignment(s), written exam Resit in August.</td>
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</table>

**objective**
The courses Finance I and Finance II give an introduction to finance and investment. The introduction regards the development of the economic framework that is used to analyse problems in the field of finance and investment, as well as how this framework can be used to tackle problems from the finance and investment practice. The focus of Finance II is on the application of the economic framework.

**content**
In the course Finance II you apply the concepts and techniques of the course Finance I to a number of financing issues. What is the optimal financing mix and the optimal dividend policy of a firm? Should a firm hedge its risks, and in which way? Next issues related to financial planning, working capital management, and mergers and acquisitions are discussed.

**literature**

**remarks**
Secretary: ms. G. Pol, g.pol@rug.nl, 050-363 3685.
19. Finance II  
**contact**  drs. J.A.M.J. Schipperijn  
**lecturers**  dr. ing. N. Brunia, drs. J.A.M.J. Schipperijn, prof. dr. F.M. Tempelaar  
**programmes**  BSc Economics (core programme) year 2 compulsory, BSc International Economics & Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3  
**language**  English  
**period**  2.1  
**EC**  6  
**format**  lectures and tutorials  
**assessment**  assignment(s), written exam  
Resit semester II b.  
**prerequisite(s)**  Recommended prior: Finance I.  
**objective**  The courses Finance I and Finance II give an introduction to finance and investment. The introduction regards the development of the economic framework that is used to analyse problems in the field of finance and investment, as well as how this framework can be used to tackle problems from the finance and investment practice. The focus of Finance II is on the application of the economic framework.  
**content**  In the course Finance II you apply the concepts and techniques of the course Finance I to a number of financing issues. What is the optimal financing mix and the optimal dividend policy of a firm? Should a firm hedge its risks, and in which way? Next issues related to financial planning, working capital management, and mergers and acquisitions are discussed.  
**remarks**  Secretary: ms. G. Pol, g.pol@rug.nl, 050-363 3685.
20. **Finance Theory and Modelling**

- **contact**
  dr. J.W. Nieuwenhuis

- **lecturer**
  dr. J.W. Nieuwenhuis

- **programme**
  BSc Econometrics (core programme) year 2 compulsory

- **language**
  English

- **period**
  2.1

- **EC**
  6

- **format**
  lectures

- **assessment**
  written exam

**objective**
Introduction to the basics of financial engineering. Key words: bond market, portfolio model of Markowitz, stock market, options, no-arbitrage principle. Binomial model.

**content**
We give an introduction to the most important concepts in financial engineering. Our treatment is conceptual and puts emphasis on the mathematical translation of concepts like risk, riskless profit, derivative, tradable. Along the way we will introduce those concepts and tools from probability theory and operations research, that are helpful in modeling and solving some basic problems in financial engineering.

**literature**
- Handouts, available via email and Nestor

21. **Financial Accounting for IE&B/Economics/IB&M**

- **contact**
  dr. C.A. Huijgen

- **lecturers**

- **programmes**
  BSc Business Studies - IB&M (core programme) year 1 compulsory, BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

- **language**
  English

- **period**
  1.2

- **EC**
  6

- **format**
  lectures and tutorials, practicals

- **assessment**
  written exam
  Resit semester II a

**objective**
To provide an insight into the role of external reporting as an information system for decision-making and an introduction to double-entry bookkeeping.
content  Administration and processing of various financial transactions; preparing the accounts (balance sheet, income statement, cash flow statement); analysing and interpreting the financial performance and financial position of companies.


remarks  Secretary: N.R. Kempa, WSN 449, 050-3633814, n.r.kempa@rug.nl

22.  Financial Econometrics   EWM020A10

contact  dr. P.W. Otter

lecturers  prof. dr. T.K. Dijkstra, dr. P.W. Otter

programmes  Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (electives Ectrs, OR & AS) year 4

language  English

period  1.1-2

EC  10

format  lectures and tutorials

assessment  assignment(s), written exam

objective  The aim of this course is for students to develop expertise in state-of-the-art econometric modeling techniques that are designed for the analysis of financial markets.

content  We will review discrete time-series analysis, as applied to financial markets and introduce diffusion models (Ito-processes), as applied to financial derivatives. Among the topics to be discussed are ARCH- and stochastic volatility models, dynamic factor models, dynamic qualitative processes, and market indexes. The valuation of financial assets, by means of present value models and intertemporal choice models, will be covered as well.

23. Game Theory

**contact**
dr. L. Schoonbeek

**lecturer**
dr. L. Schoonbeek

**programmes**
BSc Econometrics (core programme) year 3 compulsory,
Courses open to Exchange Students year 3

**language**
English

**period**
1.1

**EC**
5

**format**
lectures and tutorials

**assessment**
written exam

**objective**
The aim of the course is to provide a formal mathematical
treatment of game theory and to discuss some applications of
game theory to mathematical economic models.

**content**
This course consists of formal lectures and discussions of a
series of exercises. Attention is paid to the basic elements of
non-cooperative games, in particular of static and dynamic
games, and games with asymmetric information. There is a
formal discussion about different equilibrium concepts for
such games, like Nash equilibria, (subgame) perfect equilibria,
and pooling and separating equilibria. Ample attention will be
paid to the rationality, beliefs and information of the players.
Applications will be discussed with respect to, e.g., oligopoly
models.

**literature**
- Articles, To be announced

24. International Business Ia: Organization Design

**contact**
dr. D.H.M. Akkermans

**lecturers**
A. Saka-Helmhout

**programmes**
BSc Business Studies - IB&M (core programme) year 1
compulsory, BSc Economics (core programme) year 1
compulsory, BSc International Economics & Business (core
programme) year 1 compulsory

**language**
English

**period**
1.1

**EC**
6

**format**
lectures and tutorials

*The small group teaching tutorials are mandatory.*

**assessment**
written exam with multiple choice questions, written exam
with open questions
Part C – Course descriptions

**objective**  
This course deals with the ins and outs of organising activities in an (inter)national setting from the perspective of organisation design. It aims at providing basic knowledge about the internal outlook of organisations. We shall also pay attention to the topic of operations management. In terms of skills development, this module focuses on both discussion and presentation skills.

**content**  
The main part of the course consists of the tutorials: each week chapters of the book and cases will be presented and discussed by the students themselves under supervision of a tutor. Beside this, a number of core subjects of the course will also be discussed during lectures.

**literature**  

25. **International Business Ib: Business Research Methods**  
   **contact**  
   dr. K. Muehlfeld

   **lecturers**  

   **programmes**  
   BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

   **language**  
   English

   **period**  
   2.1

   **EC**  
   3

   **format**  
   tutorials

   **assessment**  
   assignment(s), written exam, mandatory attendance

   Written exam (75%) and group assignments in the tutorials (25%).

   **objective**  
The central goal of the present course is to develop your competence in conducting an outline for empirical research that meets academic standards of quality.

   **content**  
Business research is a systematic inquiry in order to provide information to solve managerial problems. This course offers first year students a first comprehensive assistance in conducting empirical research. The current module builds upon the knowledge of International Business 1A: Organisation Design. You are expected to make use of Daft (2004) for the organizational knowledge that is also needed in this course. The principal aim is conceptualising a research proposal and subsequently render this into a research design. Selected chapters from a textbook on ‘research methods’, drawing on a variety of quantitative and qualitative research methods, complemented by case studies, will be discussed in
detail. This course is instrumental in further developing a key academic set of skills: proposing and designing in-depth research. As such, this module must be regarded as a very productive investment in developing skills for assignments later on in your study, including the bachelor and master theses.

**literature**


**26. International Business IIA: Strategic Management**  
**EWB031A06**

**contact**  
prof. dr. H. van Ees

**lecturers**  

**programmes**  
BSc Economics (core programme) year 2 compulsory, BSc International Economics & Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3

**language**  
English

**period**  
1.1

**EC**  
6

Small group teaching with mandatory attendance  
A written exam on textbook and lecture material (75%) and small group assignments (25%).

**prerequisite(s)**  
Recommended priors: International Business 1A and 1B

**objective**  
This course offers an introduction into general issues of strategic management for all IE&B students, as well as exchange students. After finishing this course, students should be able to understand the basis concepts and tools of strategic management; and apply those concepts and tools to real-world cases.

**content**  
The course does not extensively rely on plenary lectures, but rather on interactive teaching activities that relate to real-world cases. Interactive teaching will take place in groups of about 15 IE&B students. The course is organized along the lines of eight teaching cycles that offer a guided tour that passes the different steps of the process of strategic management. The heart of the course is a series of seven group meetings during which students will present, analyze and discuss literature and real-world cases. Additionally, plenary lectures target the development of applied academic research in the strategy field, by discussing additional journal articles. The insights communicated during the plenary lectures are part of the final exam.

**literature**

27. **International Economics I: Introduction**  
**contact** prof. dr. mr. C.J. Jepma  
**lecturers** dr. H.W.A. Dietzenbacher, prof. dr. mr. C.J. Jepma  
**programmes** BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory  
**language** English  
**period** 2.2  
**EC** 6  
**format** lectures and tutorials  
Participation of the lecturers and tutorials is mandatory.

**assessment** assignment(s), written exam, mandatory attendance  
Participation of the tutorials is mandatory.

**objective** To thoroughly discuss and explain theories, empirical data, and real-life examples from the area of International Economics.

**content** The course will offer a broad introduction to International Economics. It will focus on: international trade and trade theory; trade policy; exchange rates and exchange rate theory; open macro-economics; international policy coordination and international institutions.

**literature**  

28. **International Economics II: International Monetary Economics**  
**contact** dr. G.J. Lanjouw  
**lecturer** dr. G.J. Lanjouw  
**programmes** BSc Economics (core programme) year 2 compulsory, BSc International Economics & Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3, SID-programmes (IE&B, preparing to MSc IE&B) year 3 compulsory  
**language** English  
**period** 2.2  
**EC** 6  
**format** Lectures and tutorials with mandatory attendance for IE&B and SID students

**assessment** Written exam and tutorial group assignments

**objective** To enhance participants’ knowledge of and insight into international monetary and financial theory and practice.
content  The course material consists of three parts:

- Balance-of-payments theory and policy, among which the effectiveness of macroeconomic policies in different theoretical approaches (Mundell-Fleming versus monetary).
- Exchange-rate theories, among which the monetary and portfolio approaches; exchange-rate policy, including the choice of an exchange-rate régime.
- The international monetary and financial system, including developments in the European sphere and the markets for currency derivatives.

literature  

To be announced

29. International Industrial Economics  

EWB036A06

contact  dr. H.W. Plasmeijer

lecturers  dr. H.W.A. Dietzenbacher, dr. H.W. Plasmeijer

programmes  BSc Economics (core programme) year 2 compulsory, BSc International Economics & Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3, SID-programmes (IE&B, preparing to MSc IE&B) year 3 compulsory

language  English

period  1.2

EC  6

format  lectures and tutorials

assessment  written exam

objective  This course aims at broadening the students insights into the functioning of markets characterised by imperfect competition. At the end he/she can apply the relevant models for these markets on real (general) problems of market power (such as merger, advertising, limit pricing and R&D) and on problems of international imperfect competition (such as dumping, strategic trade policy, exchange rate fluctuations, export cartels and European integration).

content  Central in this course is the students’ mastering of the tools of analysis, in particular the models of quantity and price adjustments and some game theory. Next to this a great deal of attention will be paid to problems of economic policy, such as competition policy and (de)regulation.

This course focusses in particular on international markets with imperfect competition. Subjects to be dealt with are:

- General problems of international trade, such as a.o.: the effects of barriers to trade, should a firm export, or invest abroad?, the effects of exchange rates on a firm’s performance and on national welfare.
· Policy problems of international trade, such as a.o.: export policy, international competition policy (WTO and European), economic integration.

**literature**

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### 30. International Marketing I for IE&B/Economics

**contact**
- dr. J.A. Voerman

**lecturers**
- dr. J.A. Voerman, diverse docenten

**programmes**
- BSc Economics (core programme) year 2, BSc International Economics & Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3

**language**
- English

**period**
- 1.2

**EC**
- 6

**format**
- lectures and tutorials

**assessment**
- written exam

**objective**
- First introduction to Marketing - Concepts and Strategies - for IE&B students.

**content**
- This course provides IE&B students with a first introduction in marketing. First, an overview of the marketing concept is provided, and the marketing environment and marketing in international markets are discussed. Next, markets are analysed (consumer behaviour and organisational buying behaviour), and the role of market research and information systems in this analysis is explained. Once markets are understood, segmenting of the market, targeting of segments and positioning of goods and services can take place. Next, the four components of the marketing mix and decisions regarding these components are discussed: (1) product, branding, packaging and service decisions, (2) place (distribution and channel) decisions, (3) promotion decisions, and (4) pricing decisions. Then the management of the marketing mix as a whole is treated. Finally, strategic marketing management is discussed.

**literature**
- To be announced

**remarks**
- Secretary: H.G. Tamling, WSN450, 050-3637065, h.g.tamling@rug.nl
31. **Introduction to Actuarial Science**  

*contact* prof. dr. A.G.M. Steerneman  
*programme* BSc Econometrics (core programme) year 2 compulsory  
*language* English  
*period* 2.2  
*EC* 5  
*format* lectures and tutorials  
*assessment* written exam  

**Objective**  
The student has acquired insight in the basic ideas behind insurance in general and life insurance in particular and has obtained sufficient skills to apply the theory discussed.  

**Content**  
The economics of insurance, individual risk models for a short term, survival distributions and life tables, life insurance, life annuities, and benefit premiums.  

**Literature**  

32. **Introduction to Computers**  

*contact* dr. W. Voorhoeve  
*programme* BSc Econometrics (core programme) year 1 compulsory  
*language* English  
*period* 1.1  
*EC* 2  
*format* lectures, practicals  
*assessment* computer test  

**Objective**  
At the end of the course one must be able to apply some basic techniques, especially used in econometric problems.  

**Content**  
During the practical the students have to work out problems using a spreadsheet programme (Excel) and a typesetting programme (Latex).  

**Literature**  
- *To be announced*
### 33. Introduction to Econometrics

<table>
<thead>
<tr>
<th><strong>contact</strong></th>
<th>prof. dr. P.A. Bekker</th>
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<tr>
<td><strong>lecturer</strong></td>
<td>prof. dr. P.A. Bekker</td>
</tr>
<tr>
<td><strong>programmes</strong></td>
<td>BSc Econometrics (core programme) year 2 compulsory, Courses open to Exchange Students year 3</td>
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<tr>
<td><strong>language</strong></td>
<td>English</td>
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<tr>
<td><strong>period</strong></td>
<td>2.2</td>
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<td><strong>EC</strong></td>
<td>5</td>
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<tr>
<td><strong>format</strong></td>
<td>lectures, assignment(s)</td>
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<tr>
<td><strong>assessment</strong></td>
<td>assignment(s), written exam</td>
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</table>

**Objective**: The course gives an introduction to econometrics. Especially the foundation of the econometric methodology around the linear model is emphasized.

**Content**: Taking the linear model as starting point several estimation methods and testing procedures are considered from differing viewpoints. Both exact and asymptotic methods are treated. The course distinguishes between a first introductory part, and a second more technical part.

**Literature**

### 34. Introduction to Mathematical Economics

<table>
<thead>
<tr>
<th><strong>contact</strong></th>
<th>dr. L. Schoonbeek</th>
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<tr>
<td><strong>lecturer</strong></td>
<td>dr. L. Schoonbeek</td>
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<tr>
<td><strong>programmes</strong></td>
<td>BSc Econometrics (core programme) year 2 compulsory, Courses open to Exchange Students year 3</td>
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<td><strong>language</strong></td>
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<td><strong>period</strong></td>
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<td><strong>format</strong></td>
<td>lectures</td>
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<tr>
<td><strong>assessment</strong></td>
<td>written exam</td>
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</table>

**Objective**: The aim of the course is to show how formal microeconomic models can be analysed rigorously by applying mathematical methods.

**Content**: The course discusses a number of formal mathematical models which constitute the core of modern microeconomic theory. First, a discussion is given of models of producer and consumer theory, centered around the concept of duality. Next, the course pays attention to mathematical models of monopolistic and oligopolistic behaviour, game theory, general equilibrium theory, and choice under uncertainty.

**Literature**
35. **Introduction to Operations Research**

**contact** prof. dr. G. Sierksma

**lecturer** prof. dr. G. Sierksma

**programme** BSc Econometrics (core programme) year 2 compulsory

**language** English

**period** 1.2

**EC** 5

**format** lectures and tutorials

**assessment** written exam

**objective** The objective of the course is to familiarize students with the basic theoretical aspects of (integer) linear optimization models, which makes it possible for them to analyze and solve practical optimization problems.

**content** The central problem in the course is the linear programming model (LP-model), where a linear objective function is to be maximized or minimized over a given domain, which is specified by linear (in)equalities. The decision variables can be either continuous or discrete (integer). Theoretical developments in the last few decades have produced very effective solution techniques for these problems. This, combined with the tremendous increase in computer capacity, has made it possible to solve very large-scale models with thousands of variables and constraints. No wonder that practically all big companies solving both logistical and financial questions have efficient solvers of LP-models in their repertoire.

The course treats the main mathematical principles, where theorems are always seen as general summaries and conclusions of a broad range of examples and cases. The more advanced models and solution techniques are presented in the context of practical case studies, such as production-inventory, cutting-stock, and conflicting-objective problems.

**literature**

36. **Labour Economics**  

**contact**  dr. J.P. Elhorst  
**lecturer**  dr. J.P. Elhorst  
**programmes**  BSc Economics (electives BSc Economics) year 3, Courses open to Exchange Students year 3  
**language**  English  
**period**  2.1-2  
**EC**  5  
**format**  lectures  
**assessment**  written exam with essay questions  

**objective**  The objective of this course is to develop the student’s understanding of the standard labour economics literature.  

**content**  The market that allocates workers to jobs and coordinates employment decisions is the labor market. The labor market is unique; non-pecuniary factors – such as work environment, risk of injury, personalities of managers, perceptions of fair treatment, and flexibility of work hours – loom larger in employment transactions than they do in markets for commodities. Furthermore, a host of institutions and pieces of legislation that influence the employment relationship do not exist in other markets. Labor economics is the study of the workings and outcomes of the labor market. The main subjects in this course are labour demand, labour supply, pay and productivity, inequalities and discrimination, collective bargaining, macroeconomic and regional economic issues of unemployment and labour market policy.  


**remarks**  First-year introductory course in Economics
37. **Life Insurance**

**contact**  prof. dr. A.G.M. Steerneman

**lecturer**  prof. dr. A.G.M. Steerneman

**programmes**  Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (Actuarial Studies) year 4 compulsory, MSc Econometrics, Operations Research & Actuarial Studies (electives Ec, OR & AS) year 4

**language**  English

**period**  1.1-2

**EC**  10

**format**  lectures and tutorials

**assessment**  assignment(s), written exam

**objective**  The objective of the course is to obtain advanced knowledge on standard and general products from the life insurance industry.

**content**  The course starts with an introduction in the mathematics of compound interest. The future lifetime distribution is discussed and in particular the life table. Life insurances and life annuities are treated, the relevant net single premiums are derived, and the results are applied to the calculation of net single premiums for policies. Very important are the concepts of net premium reserve and technical gain. Extensions like multiple decrements and multiple life insurance are studied. The course finishes with the treatment of the total claim amount in a portfolio and expense loadings.

38. **Macroeconomics I**

**contact** prof. dr. E. Sterken

**lecturers** dr. G.H. Kuper, S. van der Zwaag

**programmes** BSc Econometrics (core programme) year 1 compulsory, BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

**language** English

**period** 2.1

**EC** 6

Lectures, tutorials and practical

The final grade is based on an assignment (20%) and a written exam.

**objective** The student gets insight into the methods and main assumptions of macroeconomics.

**content** Why do incomes in some countries grow faster than in other countries? Why are rates of inflation high in some countries and low in others? Why do countries experience periods of falling incomes and rising unemployment? Macroeconomics, the study of the economy as a whole, attempts to answer these questions. Macroeconomists collect data on for instance incomes, prices and unemployment for different periods in time and for different countries and they formulate theories to explain these data. With this knowledge they try to formulate economic policy to improve economic performance. There are different models for different economic phenomena. Broadly speaking we can distinguish between models for the long run and models for the short run.

39. **Macroeconomics II**  

**contact** dr. G.H. Kuper  
**lecturers** dr. G.H. Kuper, drs. E. Wester  
**programmes** BSc Economics (core programme) year 2 compulsory, BSc International Economics & Business (electives BSc IE&B) year 2, Courses open to Exchange Students year 3  
**language** English  
**period** 2.2  
**EC** 6  
**format** lectures and tutorials  
**assessment** written exam  

**objective** This course bridges the gap between the first-year macroeconomics course and more advanced courses such as Macroeconomics 3 and 4. Macroeconomics 2 takes a more analytical approach to familiar macroeconomics concepts and models.  

**content** The first part of the course completes the tool-box for understanding how aggregate economies work. Essential macroeconomics concepts are introduced, in Chapters 1-7, leading to a fully dynamic aggregate demand-aggregate supply model for analysing short- and medium-run macroeconomic issues in Chapter 8. Chapters 9-11 discuss economic growth, human capital and poverty traps, and endogenous economic policy. The remainder of the book extends the analysis to economic policy and applied macroeconomics in a European context. Topics are EMS, inflation and central bank independence, budget deficits and public debt, and employment and growth.  


**remarks** Bachelor International Economics and Business  
Bachelor Economics
## 40. Macroeconomics III

**programmes**
- BSc Economics (core programme) year 3 compulsory, Courses open to Exchange Students year 3

**language**
- English

**period**
- 1.2

**EC**
- 6

**format**
- lectures and tutorials

**assessment**
- written exam

**objective**
This course has two main aims. First, it will introduce the student to the main schools of thought in macroeconomics and to the key debates between its practitioners. Second, it will provide the students with the analytical skills necessary to read and understand the professional literature.

**content**
This course starts with a brief survey of the main schools of thought in macroeconomics, such as the (new-)Keynesians, the monetarists, and the (new-)classicals. Subsequently, the course will deal in depth with various important topics such as stock-flow interaction, rational expectations and the perfect foresight hypothesis, non-Walrasian economics, macroeconomic labour markets, union behaviour and unemployment, labour market search theory, the political economy approach to macroeconomics, open economy macroeconomics.

**literature**

**remarks**
Chapters 1 to 11 will be covered in detail.

## 41. Macroeconomics IV

**programme**
- MSc Economics (Monetary Economics) year 4 compulsory

**language**
- English

**period**
- 1.1-2

**EC**
- 10

**format**
- lectures and tutorials

**assessment**
- assignment(s), written exam

**objective**
This course completes the sequence in macroeconomics and brings the students up to the required masters level in the subject. In addition, the course broadens the students’ knowledge in the related field of monetary economics.
content
This course consists of two equal-sized parts. Part 1 of the course builds on and extends the material studied in Macroeconomics 3. Topics studied include new-Keynesian economics, growth theory, and intergenerational macroeconomics. Part 2 of the course deals with issues in monetary economics. Topics include theories of inflation, monetary transmission, the credit channel, the theory of financial intermediation, and the conduct of monetary policy.

literature

42. Marketing I for Econometrics

contact
dr. J.E. Wieringa

lecturer
NN

programme
BSc Econometrics (core programme) year 2 compulsory

language
English

period
1.2

EC
6

format
lectures and tutorials

assessment
computer test, written exam

objective
A first introduction to Marketing - Concepts and Strategies -, Marketing Research and some basic concepts of International Marketing

content
This course provides E&B students with a first introduction in marketing with some international elements. First, an overview of the marketing concept is provided, and the marketing environment and marketing in international markets are discussed. Next, markets are analysed (consumer behaviour and organisational buying behaviour), and the role of market research and information systems in this analysis is explained. Once markets are understood, segmenting of the market, targeting of segments and positioning of goods and services can take place. Next, the four components of the marketing mix and decisions regarding these components are discussed: (1) product, branding, packaging and service decisions, (2) place (distribution and channel) decisions, (3) promotion decisions, and (4) pricing decisions. Then the management of the marketing mix as a whole is treated and strategic marketing management is discussed. In the second part of the course we will have a look at methods to collect marketing data and discuss statistical / econometric techniques to analyze the data.

literature
· To be announced
43. **Markets and Competition**  

**contact** dr. L. Schoonbeek  
**lecturer** dr. L. Schoonbeek  
**programme** MSc Economics (Economic Policy) year 4 compulsory  
**language** English  
**period** 1.1-2  
**EC** 10  
**format** tutorials  
Formal lectures/assignments  
**assessment** presentation(s), written exam  
Written examination and assignments  

**objective** The aim of the course is to learn how modern industrial organization theory can help to understand the relation between competition policy and observed market behavior. Upon successful completion of the course, the student should be able to read and comprehend the current literature as published in international journals in the field.  

**content** In recent years there has been much debate among economists and policy makers about competition policy and the extent of competition on markets. This course discusses in depth parts of the modern theoretical literature on industrial organization that underlie the arguments which are used in this lively and challenging debate. Ample attention will be paid to applications of the theory to practical cases. Topics discussed include: cartels, joint-ventures, mergers, vertical contracts, predatory pricing, exclusionary practices and price discrimination.  

**literature**  
- Articles  
44. **Master's Thesis Actuarial Studies**

- **contact**: dr. C. Praagman
- **lecturers**: prof. dr. R.H. Koning, dr. C. Praagman, prof. dr. A.G.M. Steerneman
- **programme**: MSc Econometrics, Operations Research & Actuarial Studies (Actuarial Studies) year 4 compulsory
- **language**: English
- **period**: 2.1-2
- **EC**: 20
- **format**: thesis
- **assessment**: report(s)
- **prerequisite(s)**: Definite admission to the master’s degree programme. Life Insurance or Risk Models. At least 20 EC of the master’s degree programme obtained.

**objective**
The student shows that he or she has obtained the knowledge, attitude and skills as specified in the Aim of the master’s degree programme Econometrics, Operations Research and Actuarial Studies.

**content**
The student writes a scientific report on an individual supervised research project, to show his or her ability to operate as an academic researcher.

45. **Master's Thesis Econometrics**

- **contact**: dr. C. Praagman
- **lecturers**: prof. dr. P.A. Bekker, dr. P.W. Otter, dr. C. Praagman, prof. dr. T.J. Wansbeek
- **programme**: MSc Econometrics, Operations Research & Actuarial Studies (Econometrics) year 4 compulsory
- **language**: English
- **period**: 2.1-2
- **EC**: 20
- **format**: thesis
- **assessment**: report(s)
- **prerequisite(s)**: Definite admission to the master’s degree programme. Micro-econometrics or Researchlab Econometrics. At least 20 EC of the master’s degree programme obtained.

**objective**
The student shows that he or she has obtained the knowledge, attitude and skills as specified in the Aim of the master’s degree programme Econometrics, Operations Research and Actuarial Studies.

**content**
The student writes a scientific report on an individual supervised research project, to show his or her ability to operate as an academic researcher.
### 46. Master’s Thesis Economic Policy

**Contact**  
Prof. dr. E. Sterken

**Programme**  
MSc Economics (Economic Policy) year 4 compulsory

**Language**  
English

**Period**  
2.1-2

**EC**  
20

**Objective**  
Writing a master’s thesis

**Content**  
This is not a course description: writing a master’s thesis is an individual activity. The student should contact a supervisor and discuss a topic of the thesis by choice. It is important that the student proposes the subject of the thesis. After completing a draft version the student has to present the results in a seminar (organized by the Institute of Economics and Econometrics). An external referee will comment on the work and discuss the final grade with the supervisor.

### 47. Master’s Thesis Monetary Economics

**Contact**  
Prof. dr. E. Sterken

**Programme**  
MSc Economics (Monetary Economics) year 4 compulsory

**Language**  
English

**Period**  
2.1-2

**EC**  
20

**Content**  
This is not a course description: writing a master’s thesis is an individual activity. The student should contact a supervisor and discuss a topic of the thesis by choice. It is important that the student proposes the subject of the thesis. After completing a draft version the student has to present the results in a seminar (organized by the Institute of Economics and Econometrics). An external referee will comment on the work and discuss the final grade with the supervisor.

### 48. Master’s Thesis Operations Research

**Contact**  
Dr. C. Praagman

**Lecturers**  
Dr. B. Goldengorin, Dr. J.W. Nieuwenhuis, Prof. Dr. G. Sierksma, Prof. Dr. G. Sierksma, Dr. M.H. van der Vlerk

**Programme**  
MSc Econometrics, Operations Research & Actuarial Studies (Operations Research) year 4 compulsory

**Language**  
English

**Period**  
2.1-2

**EC**  
20

**Format**  
Thesis

**Assessment**  
Report(s)

**Prerequisite(s)**  
Definite admission to the master’s degree programme. Stochastic Programming or Quantitative Logistics. At least 20 EC of the master’s degree programme obtained.
objective The student shows that he or she has obtained the knowledge, attitude and skills as specified in the Aim of the master’s degree programme Econometrics, Operations Research and Actuarial Studies.

content The student writes a scientific report on an individual supervised research project, to show his or her ability to operate as an academic researcher.

49. Mathematics Ia for Econometrics EWP032A04

contact dr. H.E. Nusse
lecturer dr. H.E. Nusse
programme BSc Econometrics (core programme) year 1 compulsory
language English
period 1.1
EC 4
format lectures and tutorials, practicals
assessment written exam

objective The student will learn to formulate in a mathematically correct way and acquires understanding of the mathematics underlying economic models. He or she obtains the skills to prove results, and to solve problems.

content Introduction to analysis and linear algebra

literature

50. Mathematics Ia for IE&B/Economics EWP017A02

contact dr. O.V. Iftime
lecturers drs. M. Cremers, dr. B. Goldengorin, dr. O.V. Iftime
programmes BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory
language English
period 1.1
EC 2
format lectures and tutorials
assessment written exam
<table>
<thead>
<tr>
<th>Objective</th>
<th>The student has acquired insight in the treated mathematical concepts, and has obtained sufficient skill to apply these concepts in solving economic problems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The course starts with repeating all kinds of skills from algebra. Subsequently functions of one variable and their properties are treated, and differentiation and its applications.</td>
</tr>
<tr>
<td>Literature</td>
<td>· Knut Sydsaeter and Peter Hammond, Essential Mathematics for Economic Analysis, special edition, € 65,00</td>
</tr>
</tbody>
</table>

51. **Mathematics Ib for Econometrics**

<table>
<thead>
<tr>
<th>Contact</th>
<th>dr. H.E. Nusse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturer</td>
<td>dr. H.E. Nusse</td>
</tr>
<tr>
<td>Programme</td>
<td>BSc Econometrics (core programme) year 1 compulsory</td>
</tr>
<tr>
<td>Language</td>
<td>English</td>
</tr>
<tr>
<td>Period</td>
<td>1.2</td>
</tr>
<tr>
<td>EC</td>
<td>4</td>
</tr>
<tr>
<td>Format</td>
<td>lectures and tutorials, practicals</td>
</tr>
<tr>
<td>Assessment</td>
<td>written exam</td>
</tr>
</tbody>
</table>

| Objective | The student will learn to formulate in a mathematically correct way and acquires understanding of the mathematics underlying economic models. He or she obtains the skills to prove results, and to solve problems. |
| Content   | Advanced Analysis, linear algebra, complex numbers and functions of severable variables. |

52. **Mathematics Ib for IE&B/Economics**

<table>
<thead>
<tr>
<th>Contact</th>
<th>dr. O.V. Iftime</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecturers</td>
<td>drs. M. Cremers, dr. B. Goldengorin, dr. O.V. Iftime</td>
</tr>
<tr>
<td>Programmes</td>
<td>BSc Economics (core programme) year 1 compulsory, BSc International Economics &amp; Business (core programme) year 1 compulsory</td>
</tr>
<tr>
<td>Language</td>
<td>English</td>
</tr>
<tr>
<td>Period</td>
<td>1.2</td>
</tr>
<tr>
<td>EC</td>
<td>4</td>
</tr>
<tr>
<td>Format</td>
<td>lectures and tutorials</td>
</tr>
<tr>
<td>Assessment</td>
<td>written exam</td>
</tr>
</tbody>
</table>

| Objective | The student has acquired insight in the treated mathematical concepts, and has obtained sufficient skill to apply these concepts in solving economic problems. |
content  Optimization of functions of one variable, integration, functions of several variables and techniques from financial calculus.

literature  ·  Knut Sydsaeter and Peter Hammond, *Essential Mathematics for Economic Analysis*, special edition, € 65,00

53. Mathematics Ic for Econometrics  EWP035A05

contact  dr. G.K. Immink

lecturer  dr. G.K. Immink

programme  BSc Econometrics (core programme) year 1 compulsory

language  English

period  2.1

EC  5

format  lectures and tutorials, practicals

assessment  written exam

objective  The student will learn to formulate in a mathematically correct way and acquires understanding of the mathematics underlying economic models. He or she obtains the skills to prove results, and to solve problems.

content  Multivariate analysis: differentiability and linear approximation of multivariate functions, implicit function theorem, (constrained) optimization, Lagrange multipliers, envelope theorems.


54. Mathematics Id for Econometrics  EWP036A04

contact  dr. C. Praagman

lecturer  dr. C. Praagman

programme  BSc Econometrics (core programme) year 1 compulsory

language  English

period  2.2

EC  4

format  lectures and tutorials, practicals

assessment  written exam

objective  The student will learn to formulate in a mathematically correct way and acquires understanding of the mathematics underlying economic models. He or she obtains the skills to prove results, and to solve problems.

content  Advanced linear algebra, ordinary differential equations, advanced analysis.

55. **Mathematics IIa for Economics**  
**contact** dr. M.A. Haan  
**lecturers** dr. J.P. Elhorst, dr. M.A. Haan, prof. dr. E. Sterken  
**programme** BSc Economics (core programme) year 2 compulsory  
**language** English  
**period** 1.2  
**EC** 3  
**format** lectures  
**assessment** assignment(s)  

**objective** To provide students with the mathematical tools that are necessary to tackle more advanced courses in Economics.  

**content** Topics in this course include basic calculus, matrix algebra, static optimization (Lagrange, Kuhn-Tucker), and dynamic optimization (maximum value function, Hamiltonians, transversality). Please note that the second part of this course (taught in semester 2.1) is identical to the previous course Optimization. Students who need to pass Optimization, can follow the course Mathematics for GE II instead.  

**literature**  

56. **Mathematics IIb for Economics**  
**contact** dr. M.A. Haan  
**lecturers** dr. J.P. Elhorst, dr. M.A. Haan, prof. dr. E. Sterken  
**programme** BSc Economics (core programme) year 2 compulsory  
**language** English  
**period** 2.1  
**EC** 6  
**format** lectures  
**assessment** assignment(s)  

**objective** To provide students with the mathematical tools that are necessary to tackle more advanced courses in Economics.  

**content** Topics in this course include basic calculus, matrix algebra, static optimization (Lagrange, Kuhn-Tucker), and dynamic optimization (maximum value function, Hamiltonians, transversality). Please note that the second part of this course (in semester 2.1) is identical to the former course Optimization. Students who need to pass Optimization can follow Mathematics for GE II instead.  

**literature**  
57. **Matrices, Graphs, Convexity**

- **contact**: dr. H.E. Nusse
- **lecturer**: dr. H.E. Nusse
- **programme**: BSc Econometrics (core programme) year 2 compulsory
- **language**: English
- **period**: 1.1
- **EC**: 4
- **format**: lectures and tutorials
- **assessment**: written exam

**objective**: To obtain knowledge and skills of mathematical methods used in econometrics

**content**: The main issues are convexity and matrices. These issues are dealt with because of their significance for the econometric courses. Smaller issues are: non-negative matrices, graph theory, symmetric matrices, Kronecker products of matrices, singular value decomposition of matrices, convex functions, hyperplanes and cones, separating hyperplanes and extrema.

**literature**: H.E. Nusse, *Matrices, Graphs and Convexity*, Lecture Notes, Groningen 2005

58. **Microeconometrics**

- **contact**: prof. dr. T.J. Wansbeek
- **lecturers**: B.R. Rekveldt, prof. dr. T.J. Wansbeek
- **programmes**: Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (Econometrics) year 4 compulsory, MSc Econometrics, Operations Research & Actuarial Studies (electives Electcs, OR & AS) year 4
- **language**: English
- **period**: 1.1-2
- **EC**: 10
- **format**: lectures, assignment(s)
- **assessment**: assignment(s), written exam

**objective**: The aim of the course is to provide the student with a broad encyclopaedic knowledge of methods for the analysis of microeconomic data and to let him/her obtain an active command of the mathematical and computational aspects of the various methods.

**content**: The course deals with a large number of methods that are commonly used in the analysis of microeconomic datasets. This includes the following topics. Methods to deal with measurement error and latent variables: regression with measurement error, structural and functional methods, reverse regression and the analysis of discrimination, consistent estimation with instrumental variables and higher-order
moments, LIML, factor analysis and principal components, MIMIC and LISREL; methods for discrete and limited-dependent variables; choice models (probit and ordinary and nested logit), censored regression, models for self-selection, models for duration data (proportional hazards, Cox-regression, accelerated lifetimes); methods for longitudinal data (panel data), fixed and random effects, endogenous regressors, endogenous selection, and dynamic models for longitudinal data. In addition, some topics are discussed of a more general character like identification in parametric models, model selection, and the generalized method of moments (GMM).

literature


59. Microeconomics I for Econometrics  

**contact**  
drs. P. Heijnen

**lecturer**  
drs. P. Heijnen

**programme**  
BSc Econometrics (core programme) year 1 compulsory

**language**  
English

**period**  
1.1

**EC**  
6

**format**  
combined lectures/tutorials, practicals

**assessment**  
assignment(s), written exam

**objective**  
To obtain the basic knowledge necessary to see (a) how individual consumers and producers take decisions and (b) how these decisions are coordinated through markets.

**content**  
We start with a thorough introduction of the theory of consumer behavior and producer behavior. Next, we study how these decisions can be coordinated through markets. Market varieties that are studied are perfect competition, monopoly and oligopoly. The last subject is a brief introduction to the theory of general equilibrium and welfare theory.

**literature**

60. Microeconomics I for IE&B/Economics

Contact
- dr. H.W. Plasmeijer

Lecturers

Programmes
- BSc Economics (core programme) year 1 compulsory
- BSc International Economics & Business (core programme) year 1 compulsory

Language
- English

Period
- 1.1 EC

Format
- Lectures, tutorials and practicals

Assessment
- Written exam

Objective
To acquaint students with the basic principles of microeconomic theory and provide insights into the interrelationships between markets. Students learn to apply these basic principles to real world phenomena such as competition between enterprises and its effect on social welfare.

Content
Microeconomics 1 deals with the basic principles of microeconomic theory. Every day, consumers make decisions about the purchase of goods and services, while companies continuously decide what their product range will include and in what quantities they will supply the market. Within the resource constraints of the economy, goods have to be produced that will maximise utility, and they have to be allocated to the most urgent needs.

In Western economies, the decisions of consumers and producers are coordinated on the market by means of the price mechanism. Prices are a measure of scarcity. Microeconomics deals with the individual decisions of consumers and producers and their coordination through the market mechanism. It covers the main factors that are relevant to these decisions, such as, e.g. information, uncertainty, competition, strategic behaviour and the interrelationships between markets. It studies the behaviour of companies on the markets (the degree of competition and economic incentives for innovation) and how this behaviour contributes to social welfare and economic growth.

Many if not most courses in the study IE&B build upon microeconomic principles. Hence, a thorough understanding of the basics of microeconomics is absolutely necessary.

Literature
61. **Microeconomics III**

   **contact** prof. dr. P. Kooreman
   **lecturer** prof. dr. P. Kooreman
   **programmes** BSc Economics (core programme) year 3 compulsory, Courses open to Exchange Students year 3
   **language** English
   **period** 1.1
   **EC** 6
   **format** lectures
   **assessment** assignment(s), written exam
   Written exam (75%) and home assignment (25%)

   **objective** The purpose is to acquire a broad knowledge of modern microeconomics, and to develop the capability to use microeconomic insights in policy analyses.

   **content** Ultimately, the economy is the outcome of decisions taken by individuals. Microeconomics analyzes behavior at the individual level (consumers, producers, stockholders, politicians), and the interactions between individuals, in particular on markets. Partly on the basis of class room experiments, this course covers the classical micro topics as well as the more recent extensions such as behavior under uncertainty, asymmetric information, bounded rationality, and auctions. Examples of policy applications that are discussed include the effect of internet on prices, road-pricing, and no-cure-no-pay in law and health care.

   **literature**

62. **Modelling**

   **contact** prof. dr. R.H. Koning
   **lecturers** prof. dr. R.H. Koning, mw. A. Piening
   **programme** BSc Econometrics (core programme) year 1 compulsory
   **language** English
   **period** 1.2
   **EC** 7
   **format** lectures and tutorials, practicals
   **assessment** oral exam, assignment(s), mandatory attendance

   **objective** Different techniques from econometrics, operations research, mathematical economics and actuarial science are used to solve economic problems in this course. The focus is on model building and using models. The course provides a first introduction to the main subjects of the EOR curriculum. During the course, communication skills, writing skills, and computer skills are trained explicitly.
content  What is the econometrics curriculum about? This course provides an introduction into the specializations of the curriculum. Students work on small, economic problems that can be solved using techniques from statistics, econometrics, operations research, and actuarial science. Solutions are given in papers, and are presented during the meetings.

remarks  Students have to attend at least 80% of the lectures. Participation in the exam is only open for the students who have obtained a sufficient grade for the computer exercises.

63.  Money and Banking  EWM037A10

contact  drs. E. Wester

lecturer  NN

programme  MSc Economics (Monetary Economics) year 4 compulsory

language  English

period  1.1-2

EC  10

format  tutorials

assessment  presentation(s), written exam

Grading will be based on a written examination at the end of the course and on the evaluation of casework during the course.

objective  Acquisition of knowledge of and insight into the subject of money and banking.

content  This course deals with the following areas: financial systems in the Netherlands, Europe, and world-wide; recent developments in the financial system and their mutual relationships (liberalisation, deregulation, new instruments, concentration processes, emergence of financial conglomerates; financial centres); developments in prudential supervision of banks and other financial institutions; European Economic and Monetary Union and the European Central Bank; financial crises, including the role of the International Monetary Fund in crisis prevention and crisis management; developments in international banking.

literature  ·  To be announced
64. **Programming I**

- **contact**: drs. K.E. Bouwman
- **lecturer**: drs. K.E. Bouwman
- **programme**: BSc Econometrics (core programme) year 2 compulsory
- **language**: English
- **period**: 1.1
- **EC**: 5
- **format**: lectures, practicals
- **assessment**: computer test

**objective**: After completing this course, the student should be acquainted with the most important aspects of the programming language Object Pascal. This should enable the student to write simple computer programs with Delphi.

**content**: Besides the programming language Object Pascal general aspects in computer science will be considered.

**literature**

65. **Programming II**

- **docent**: drs. S. Knypstra
- **docent**: drs. S. Knypstra
- **opleiding**: BSc Econometrics (basisprogramma) jaar 2 verplicht
- **voertaal**: Nederlands
- **periode**: 2.2
- **EC**: 5
- **onderwijsvorm**: practica
- **toetsvorm**: computertoets

**doel**: At the end of the course the student is able to apply advanced programming techniques in Delphi. The student will also be able to make programs in the S programming language.

**inhoud**: Advanced programming techniques in Delphi; programming in S-PLUS.

**literatuur**
Public Choice & Law and Economics

contact prof. dr. C.G.M. Sterks
lecturer prof. dr. C.G.M. Sterks

programmes MSc Economics (electives MSc Economics) year 4, MSc Economics of Taxation year 4 compulsory

language English
period 2.1-2
EC 10

format tutorials
Lectures/seminars (2 hours weekly) and 6 individual assignments

assessment assignment(s), written exam
Written exam (75%) and individual assignments (25%)

objective Although economics is about exchange, economics students are seldom trained in analyzing the fundamentals of property rights and contracts. Furthermore, students of microeconomics are confronted with much technical analysis, which often prevents them from being critical enough about underlying assumptions and implications. Traditional microeconomics, moreover, views government as omniscient and benevolent – a view that is far from realistic.

This course tries to fill this gap; you will learn to pose the right questions and to formulate economic problems more accurately. In the past, many students have indicated that they only clearly understood what economics is all about after they had completed this course.

content The course consists of two parts: Public Choice and Law & Economics. Both schools of thought apply the principles of economics to law and regulation: the former to public and constitutional law, and the latter to private and criminal law.

Public Choice (part 1) deals with the basic concepts of welfare economics, tax theory, income (re)distribution, public sector failure and public expenditure growth, and ‘normative’ and ‘positive’ optimal taxation. The book studied in the course compares/juxtaposes two approaches: the traditional, welfare economics approach to taxation and an approach in which government is seeking to maximize tax revenue. It shows that applying traditional welfare economics to taxation can be far from neutral.

Law & Economics (part 2) deals with the basic principles of efficiency and equity, and illustrates/explains the predominance of efficiency arguments in law making. The formulation and incentive effects of legal rules are examined.

After property rights have been formulated, agents can enter into a contract. Tort law deals with the economic side effects...
that develop when no contract exists, while criminal law is applied in case of intentional and public harm. Attention will also be paid to the economic theory of the legal process and the principle agent problems involved.

**literature**
- Cases from www.

### Public Economics

**contact** prof. dr. B.J. Heijdra  
**lecturer** prof. dr. B.J. Heijdra  
**programme** MSc Economics (Economic Policy) year 4 compulsory  
**language** English  
**period** 1.1-2  
**EC** 10  
**format** lectures  
**assessment** assignment(s), written exam  
Midterm exam, final exam; assignment(s)

**objective** The course will make use of the insights gained in the Bachelor courses on microeconomics, macroeconomics, public economics, and quantitative methods. The course will be of an analytical and policy-oriented nature. Upon successful completion of the course, the student should be able to read and comprehend the current literature as published in the various volumes of the Handbook of Public Economics and the top learned journals in the field, such as the Journal of Public Economics and International Tax and Public Finance. He/she should also be able to act as a modern and competent professional advisor in government or the private sector.

**content** This course will cover most of the following broad topics:
- Taxation theory: taxation of goods, factors, saving; tax incidence; income taxation; international tax competition; environmental taxation; taxation and debt in a dynamic setting.
- Public goods: education; health care; infrastructure, scale economies, the (modified) Samuelson rule.
- Pensions: ageing, pension reform, the role of migration.
Study guide 2005-2006 Econometrics/Economics

**literature**

**remarks**
The students will be provided with a detailed reading guide for the lectures. Additional readings may be assigned containing specific policy applications. These may be taken from sources such as Economic Policy, Brookings Papers, etc.

### 68. Public Finance

**contact**
dr. J.P. Elhorst

**lecturers**
dr. J.P. Elhorst, prof. dr. J. Oosterhaven

**programmes**
BSc Economics (core programme) year 2 compulsory, BSc International Economics & Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3

**language**
English

**period**
1.1

**EC**
6

**format**
lectures and tutorials

**assessment**
written exam with essay questions

**objective**
This course enlarges your insight into the role of government in the economy. What should be the role of the government? How should it design its programmes in areas ranging from health and education, to social security and welfare? How should tax systems be designed to promote economic efficiency and to be consistent with basic views of fairness?

**content**
The first part of this course focuses on traditional public finance issues: basic welfare economics, analysis of public expenditures, tax analysis, and fiscal federalism. It refreshes and extends the fundamentals of welfare economics as discussed in first-year microeconomics and explains the economic role of government regarding equity and efficiency. The second part is concerned with the basic theory of public expenditure (public goods, externalities, public choice and welfare programs). The third part deals with taxation issues (the distribution of tax burdens, efficiency and equity aspects of taxation). The final part is devoted to decentralization, the financial relation between different layers of government and local taxation. After these theoretical and microeconomic aspects we turn to an overview of the role of government in the current international macroeconomic economic situation and elaborate on international taxation issues like tax harmonisation and tax competition.
Part C – Course descriptions

69. **Quantitative Finance**  
*Contact*  
Dr. J.W. Nieuwenhuis

*Lecturer*  
Dr. J.W. Nieuwenhuis

*Programmes*  
BSc Econometrics (core programme) year 3 compulsory, 
Courses open to Exchange Students year 3

*Language*  
English

*Period*  
1.1, EC 5

*Format*  
Lectures

*Assessment*  
Oral exam, paper

*Objective*  
This course is intended to be an introduction to mathematical finance in continuous time. Along the way concepts from probability theory and stochastic processes will be explained as well, as they are needed to carefully explain the notion of stochastic integral.

*Content*  
During the course the emphasis is on the valuation and hedging of European and American options in the context of binomial trees and in the setting of the famous model by Black and Scholes, by means of probabilistic methods and by means of partial differential equations.

*Literature*  
- J.W. Nieuwenhuis, *Lecture notes*, available before the start of the course

70. **Quantitative Logistics**  
*Contact*  
Dr. B. Goldengorin

*Lecturers*  
Dr. B. Goldengorin, prof. dr. G. Sierksma

*Programmes*  
Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (Operations Research) year 4 compulsory, MSc Econometrics, Operations Research & Actuarial Studies (electives Econ, OR & AS) year 4

*Language*  
English

*Period*  
2.1, EC 10

*Format*  
Assignment(s), lectures

*Assessment*  
Computer test, written exam

*Objective*  
The objective of this course is to make students familiar with state-of-the-art optimization techniques that are used to solve logistical problems.
content  Optimization techniques (including partial enumeration and heuristic algorithms as well as deterministic and stochastic dynamic programming) that are used to solve logistical problems, including Shortest Path, Shortest Spanning Tree, Assignment, Traveling Salesman, Simple Plant Location, P-median, Set Covering, Maximum and Minimum Flow (Cut), Matching, Arc Routing (Chinese Postman), Knapsack, Linear Ordering and Inventory (deterministic and probabilistic) Problems. Students are challenged to use a computer package (NETSOLVE) for solving a number of more or less real-life problems from the area of telecommunication.

literature  

71. Researchlab Econometrics

**contact**  prof. dr. P.A. Bekker

**lector**  prof. dr. P.A. Bekker

**programmes**  Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (Econometrics) year 4 compulsory, MSc Econometrics, Operations Research & Actuarial Studies (electives Ectrcs, OR & AS) year 4

**language**  English

**period**  2.1

**EC**  10

**format**  assignment(s)

**assessment**  assignment(s)

**objective**  To arouse interest for econometric and quantitative economic research, for example, as it takes place in a Ph.D-research project.

**content**  Students do research in small groups (maximum two, minimum one). There are no classes, the literature is not fixed and there is no exam. Instead the group writes a report and presents it at a meeting at the end of the course. The assignment can be selected from a file of assignments. Each assignment has been described briefly, on a single sheet, by a companion researcher. Choosing an assignment provides the right to communicate ten times for one hour with the companion researcher. The latter will also provide additional information about relevant literature, data and computer programming. At the end, after presentation of the research report, approval by the companion researcher and the (administrative) supervisor is needed to acquire the credits.
72. **Risk Insurance**

**Contact**
prof. dr. R.H. Koning

**Lecturers**
prof. dr. R.H. Koning, dr. J.W. Nieuwenhuis

**Programmes**
BSc Econometrics (core programme) year 3 compulsory,
Courses open to Exchange Students year 3

**Language**
English

**Period**
1.2

**EC**
7

**Format**
lectures, assignment(s)

**Assessment**
written exam

**Objective**
After taking this course, students are able to analyze simple general insurance portfolio's using the individual and collective model.

**Content**
What is the expected payout on a portfolio of fire-insurance policies? How do you estimate the cost of warranty on television sets? This course gives an introduction to statistical and mathematical models to analyse (many) small risks. How can one insure himself against these risks, and which price is to be asked by the insurer such that he has a viable business in the long term? Topics of the course are:

- the individual risk model;
- the collective risk model;
- ruin theory;
- credibility theory.

**Literature**

73. **Risk Models**

**Contact**
prof. dr. R.H. Koning

**Lecturer**
prof. dr. R.H. Koning

**Programmes**
Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (Actuarial Studies) year 4 compulsory, MSc Econometrics, Operations Research & Actuarial Studies (electives Ectrcs, OR & AS) year 4

**Language**
English

**Period**
2.1

**EC**
10

**Format**
lectures, assignment(s)

**Assessment**
paper, written exam

**Objective**
This course teaches models to analyze extreme events in financial time series, general insurance, hydrology, networks, etc. The theoretical models are applied using ‘real’ data sets.
content  Extreme events occur more often than is generally believed. How does one model the frequency of occurrence of extreme events, and how does one model the excess over a high threshold (for example, what is the expected loss on a portfolio, given that the loss is at least 15%)? Extreme value theory provides useful answers to such questions. It is used in practice to model the risk on portfolio’s of investments, on insurance portfolio’s, but also to determine the height of dykes, and the capacity of networks. Extreme value models have been used successfully to provide benchmarks used in scenario analysis. In the course both theory and practical applications are discussed. Students will analyze real datasets themselves with these methods. The course is relevant for students with interest in finance, econometrics, and actuarial science.

literature  · R.H. Koning, *Readings in Risk Models*, Reader
· T. Mikosch, *Risk Models*, Reader

74. Spatial & Transport Economics EWM052A10

contact  prof. dr. J. Oosterhaven
lecturer  prof. dr. J. Oosterhaven
programme  MSc Economics (electives MSc Economics) year 4
language  English
period  2.1
EC  10
format  tutorials
Lectures and assignments
Four parts determine the grade: separate written examinations for spatial economics and for transport economics (each 40%) and separate (computer) assignments for spatial economics and for transport economics (each 10%).

prerequisite(s)  Intermediate level of micro economics

objective  This course teaches the student to combine theoretical insights from location theory, trade theory, network economics and welfare theory with empirical knowledge about the functioning of the transport system, and of cities and regions. It thus enables the student to better understand why some cities function better than others and why again others are growing faster or slower. With this knowledge students will be able to study and advise on the likely effects of all kind of transport and other urban and regional policy measures.

content  Especially in an urban setting, spatial economics is dominated by the study of imperfect competition, externalities and accessibility. Space itself, through transport and communication cost, provides for partially protected markets and thus for imperfect competition. Knowledge externalities occur when firms are located close together. Amongst others,
these are associated with labor mobility and intermediate transactions between firms. Welfare externalities occur when firms and households are located close together. Amongst others, these are associated with the housing market and the functioning of the transport system (especially congestion). The related agglomeration (dis)economies strongly influence the comparative advantages of cities and regions. The functioning of the urban and the interregional transport system, through its impact on accessibility, further influences the comparative advantage of cities.

**literature**

**remarks**
When your master programme admits it, you may either take the spatial economics part (5 EC) or the transport economics part (5 EC) or the combination of both (10 EC).

### 75. Spatial Economics for Economics EWB071A06

**contactdocent** drs. T.M. Stelder  
**docent** drs. T.M. Stelder  
**opleidingen** BSc Economics (basisprogramma) jaar 3 verplicht, Courses open to Exchange Students jaar 3  
**voertaal** Nederlands  
**periode** 6  
**onderwijsvorm** hoor- en werkcolleges  
**toetsvorm** schriftelijk tentamen  

Schriftelijk tentamen, bestaande uit twee schriftelijke opdrachten tijdens cursus (20%) en een eindtoets (80%).

**doel** Het eigen maken van en kunnen omgaan met de literatuur op het gebied van de ruimtelijke economie in brede zin.

**inhoud** Dit college geeft u inzicht in locatiebeslissingen van consumenten en bedrijven, alsmede in de verschillen in economische ontwikkeling tussen steden en regio’s in nationaal en internationaal perspectief. In het kader van de vestigingsplaatsetheorie wordt ingegaan op de ruimtelijke prijszetting van bedrijven op één en op meerdere geografische markten, het ruimtelijke patroon en de hiërarchie van die markten, de uitbreidings- en vestigingsbeslissingen van bedrijven in nationaal en internationaal perspectief en de betekenis van nieuwe technologie, infrastructuur, arbeidsmarkt en overheidsbeleid voor deze beslissingen. Vervolgens worden theorieën en modellen besproken die de woon- en werkplaatskeuzes van huishoudens verklaren. Ten
slotte komen de grondmarkt en verschillende modellen voor het stedelijk grondgebruik en de woningmarkt aan de orde. In het kader van de economie van regio’s en steden komen verklaringen aan de orde voor de groei en ontwikkeling van regio’s en steden en voor hun onderlinge verwevenheid via handel en de mobiliteit van productiefactoren. Middels input-output modellen wordt geleerd hoe op operationele wijze uitspraken kunnen worden gedaan over de economische betekenis en de effecten van projecten en sectoren.

literatuur
- Oosterhaven, Elhorst, Stelder, _Syllabus Capita Selecta Spatial Economics_, 2004
- P. McCann, _Urban and Regional Economics_, 2001, Oxford University Press

76. Specialization Course Applied Operations Research  EWB088A10

contact  dr. M. H. van der Vlerk
programmes  BSc Econometrics (electives BSc Econometrics) year 3, Courses open to Exchange Students year 3
language  English
period  2.1-2
EC  10
format  lectures, practicals
assessment  oral exam, presentation(s), report(s)

objective  The aim of this course is for students to develop the research skills required for applied Operations Research. This includes mathematical modelling as a tool for analysing and solving practical decision problems, working with software packages for optimisation (AIMMS) and simulation (eM-Plant), writing reports and giving oral presentations.

content  Students will work out a number of case studies (in pairs), on which reports will be made and presentations given during the course. The cases are practical applications of planning and scheduling problems in, among others, production- and distribution logistics, telecommunication, finance, traffic and transport, and agriculture. Much attention will be paid to the possibilities and difficulties encountered when using simulation as a flexible method to analyse the process of complex stochastic systems. Special attention is given to the statistical analysis of the output and the optimisation with the aid of simulation.

literature
- C. Schweigman, G. Joosten, M.H. van der Vlerk, _Reader Simulation, Decision Making under Uncertainty and Simulation_, 1994, RUG
- A.M. Law & W.D. Kelton, _Simulation Modelling and_
77. **Specialization Course Econometric Methods**

**contact**  prof. dr. P.A. Bekker

**lecturer**  prof. dr. P.A. Bekker

**programmes**  BSc Econometrics (electives BSc Econometrics) year 3, Courses open to Exchange Students year 3

**language**  English

**period**  2.2

**EC**  5

**format**  lectures, assignment(s)

**assessment**  assignment(s), open book exam

**objective**  The course aims to make a connection with the econometric literature that frequently uses asymptotic and computing intensive methods. Assignments emphasize the careful formulation of scientific reasoning.

**content**  This course provides a rigorous treatment of asymptotic theory, which is applied to the linear model. In addition to asymptotic inference, the course considers non-parametric inference and aspects of non-parametric regression. The course includes an assignment where asymptotics is applied in a context of option prices.


78. **Specialization Course Financial Intermediation**

**contact**  prof. dr. E. Sterken

**lecturer**  prof. dr. E. Sterken

**programmes**  BSc Economics (electives BSc Economics) year 3, Courses open to Exchange Students year 3

**language**  English

**period**  2.1-2

**EC**  10

**format**  lectures and tutorials

**assessment**  paper, written exam

There will be a written exam on the two books (60%) and a grading of the individual paper (40%).

**objective**  The goal of the course is to learn the basics of financial economics, loan, and depositing models, and to get the principle insights into the working of financial systems. Students get an up-to-date knowledge of the theory of financial intermediation. Moreover, each student has to hand in and discuss a paper on a topic in financial intermediation.
content  The first part of the course will discuss the books of Eichberger and Harper (Chapters 1,3,6,7,8,9) and Allen and Gale (Chapters 1 to 5). Problem sets will be analysed: students need to prepare the answers. The second part of the course is the completion of a paper on a topic in Financial Intermediation. This paper is discussed and defended in class.


79. Specialization Course Generalized Linear Models  EWB083A05

contact  drs. S. Knypstra
lecture  drs. S. Knypstra
programmes  BSc Econometrics (electives BSc Econometrics) year 3, Courses open to Exchange Students year 3
language  English
period  2.1
EC  5
format  lectures, assignment(s)
assessment  assignment(s)

objective  At the end of the course the student is able to formulate generalized linear models and to estimate the associated parameters. The student is also capable to test and select models. The student knows the most important (asymptotic) properties of estimators and test statistics. Moreover, the student is able to apply the theory to actual data sets using the statistical package S-PLUS.

content  The course gives an introduction to the field of generalized linear models (glm). Apart from ordinary linear models (linear regression, ANOVA) glm’s also include log-linear and logistic regression models. In practice, these models are used in various application areas, for instance by insurance companies to model the number and the height of claims. Important ingredients are maximum likelihood, exponential families of probability distributions and the link function. During the course the theory is studied and applications will be discussed. Moreover the statistical software package S-PLUS will be discussed. To get accustomed to the material there are exercises to practice both theory and applications. These exercises are mandatory.

literature  ·  A. Azzalini, *Statistical Inference Based on the Likelihood*, 1996 (ISBN: 0-412-60650-x), € 60,00
·  S. Knypstra, *Syllabus Generalised Linear Models*, 2005
<table>
<thead>
<tr>
<th><strong>80. Specialization Course Political Economics</strong></th>
<th><strong>EWB086A10</strong></th>
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<tbody>
<tr>
<td><strong>contact</strong></td>
<td>prof. dr. J. de Haan</td>
</tr>
<tr>
<td><strong>lecturer</strong></td>
<td>prof. dr. J. de Haan</td>
</tr>
<tr>
<td><strong>programmes</strong></td>
<td>BSc Economics (electives BSc Economics) year 3, Courses open to Exchange Students year 3</td>
</tr>
<tr>
<td><strong>language</strong></td>
<td>English</td>
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<tr>
<td><strong>period</strong></td>
<td>2.1-2</td>
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<td><strong>EC</strong></td>
<td>10</td>
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<tr>
<td><strong>format</strong></td>
<td>assignment(s)</td>
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<tr>
<td></td>
<td>Assignments and paper (which will be discussed)</td>
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<tr>
<td><strong>assessment</strong></td>
<td>assignment(s)</td>
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<td></td>
<td>The assignments and the paper and the exam have an equal weight (40%) in the overall grade for the course; the remaining 20% is determined by the contribution in the discussion.</td>
</tr>
<tr>
<td><strong>prerequisite(s)</strong></td>
<td>Econometrics for GE</td>
</tr>
<tr>
<td><strong>objective</strong></td>
<td>This course provides an overview of the current state of affairs of scientific research in the field of political economy. Upon successful completion of the course, the student should be able to read and comprehend the current literature as published in journals like the Journal of Political Economy, Public Choice and the European Journal of Political Economy.</td>
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<tr>
<td><strong>content</strong></td>
<td>Topics covered are: central bank independence, central bank transparency and accountability, budgetary institutions, political business and partisan theories, the impact of the political system on fiscal policy outcomes, the impact of democratic and economic freedom on the growth performance of countries, the political economy of rules for national fiscal policy in a monetary union, the political economy of international organisations.</td>
</tr>
<tr>
<td><strong>literature</strong></td>
<td>· <em>Reader Political Economy</em>, Reader contains articles published in international journals</td>
</tr>
</tbody>
</table>
81. **Statistics Ia for Econometrics**

**contact**
drs. S. Knypstra

**lecturer**
drs. S. Knypstra

**programme**
BSc Econometrics (core programme) year 1 compulsory

**language**
English

**period**
1.1

**EC**
3

**format**
combined lectures/tutorials, practicals

**assessment**
written exam

**objective**
The student should be able to apply the probability theory.

**content**
The student should study the material and try to make the exercises published on Nestor. The material is covered in the chapters 1, 2 and 3 of the Rice textbook. During the lecture hours the theory is summarised and discussed and exercises are discussed. There is a weekly practical training and a practical training ‘Applications’ where exercises are solved, often with the help of the computer.

**literature**

82. **Statistics Ia for IE&B/Economics**

**contact**
dr. P. Rao Sahib

**lecturers**

**programmes**
BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

**language**
English

**period**
1.2

**EC**
4

**format**
lectures and tutorials

**assessment**
assignment(s), written exam

**objective**
The goal of this course is to train students to interpret data effectively and to use concepts of probability in making decisions in an uncertain environment. A key challenge facing a global manager is how to effectively interpret the vast amount of data generated in the world today. Statistical models and techniques allow us to draw inferences and make decisions under conditions of partial information and uncertainty. The statistical package SPSS will be used during the course as an aid to making calculations and graphically representing data.
Part C – Course descriptions

**content**
This course covers the topics of data description, data summarization, probability and discrete probability distributions.

**literature**

**Statistics I b for Econometrics**

**contact**  
drs. S. Knypstra

**lecturer**  
drs. S. Knypstra

**programme**  
BSc Econometrics (core programme) year 1 compulsory

**language**  
English

**period**  
1.2

**EC**  
4

**format**  
combined lectures/tutorials, practicals

**assessment**  
written exam

**objective**  
The student should be able to apply the techniques studied in probability theory and statistics.

**content**  
The student should study the material and try to make the exercises published on Nestor. The material is covered in the chapters 4, 5, 6 and 7 until section 7.5 of the Rice textbook. During the lecture hours the theory is summarised and discussed and exercises are discussed. There is a weekly practical training and a practical training ‘Applications’ where exercises are solved, often with the help of the computer.

**literature**
84. **Statistics Ib for IE&B/Economics**  
*EWP023A04*

**contact**  
dr. P. Rao Sahib

**lecturers**  
dr. P.W. Otter, dr. P. Rao Sahib

**programmes**  
BSc Economics (core programme) year 1 compulsory, BSc International Economics & Business (core programme) year 1 compulsory

**language**  
English

**period**  
2.1

**EC**  
4

**format**  
lectures and tutorials

**assessment**  
assignment(s), written exam

**objective**  
This course is a continuation of Statistics 1a.

**content**  
This course covers the topics of continuous probability distributions, sampling, confidence intervals and hypothesis testing.

**literature**  

85. **Statistics Ic for Econometrics**  
*EWP029A04*

**contact**  
dr. F.van Perlo-ten Kleij

**lecturer**  
dr. F.van Perlo-ten Kleij

**programme**  
BSc Econometrics (core programme) year 1 compulsory

**language**  
English

**period**  
2.1

**EC**  
4

**format**  
combined lectures/tutorials, practicals

**assessment**  
computer test, written exam

**objective**  
The student is supposed to be able to apply the statistical techniques treated.

**content**  
The student is supposed to study the material to be treated according to the schedule and to work out the problems selected. Every week there are five hours where the material will be summarized and where questions and problems will be treated. Also there is a practical where the students can solve additional problems, plus ‘applied exercises’ where problems will be solved using the computer.  
Section 7.5 up to and including chapter 9 plus chapter 13 of Rice will be treated.
Part C – Course descriptions

86. Statistics Id for Econometrics

<table>
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<tr>
<th>lecturer</th>
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<tbody>
<tr>
<td>programme</td>
<td>BSc Econometrics (core programme) year 1 compulsory</td>
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<tr>
<td>language</td>
<td>English</td>
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<tr>
<td>period</td>
<td>2.2</td>
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<tr>
<td>EC</td>
<td>5</td>
</tr>
<tr>
<td>format</td>
<td>combined lectures/tutorials, practicals</td>
</tr>
<tr>
<td>assessment</td>
<td>computer test, written exam</td>
</tr>
</tbody>
</table>

**objective**
The student is supposed to be able to apply the statistical techniques treated.

**content**
The student is supposed to study the material to be treated according to the schedule and to work out the problems selected. Every week there are five hours where the material will be summarized and where questions and problems will be treated. Also there is a practical where the student can solve additional problems, plus ‘applied exercises’ where problems will be solved using the computer.

Chapters 11, 12 and 14 of Rice will be treated.

**literature**

87. Statistics II for IE&B/Economics

<table>
<thead>
<tr>
<th>contact</th>
<th>dr. P. Rao Sahib</th>
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<tbody>
<tr>
<td>lecturers</td>
<td>dr. P.W. Otter, dr. P. Rao Sahib</td>
</tr>
<tr>
<td>programmes</td>
<td>BSc Economics (core programme) year 2 compulsory, BSc International Economics &amp; Business (core programme) year 2 compulsory, Courses open to Exchange Students year 3</td>
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<tr>
<td>language</td>
<td>English</td>
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<tr>
<td>period</td>
<td>1.1</td>
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<td>EC</td>
<td>3</td>
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<tr>
<td>format</td>
<td>lectures and tutorials</td>
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<tr>
<td>assessment</td>
<td>assignment(s), written exam</td>
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</table>

**objective**
The goal of this course is to train students to interpret data effectively and to use concepts of probability in making decisions in an uncertain environment. A key challenge facing a global manager is how to effectively interpret the vast amount of data generated in the world today. Statistical
models and techniques allow us to draw inferences and make
decisions under conditions of partial information and
uncertainty. The statistical package SPSS will be used during
the course as an aid to making calculations and graphically
representing data.

**content**

This course covers the topics of simple and multiple
regression, analysis of variance, goodness-of-fit tests and non-
parametric statistics.

**literature**

  for Windows*, Thomson Publishing, Please note that this is
  optional. Students can buy another SPSS guide if they wish
  (ISBN: 0-534-61006-4), € 30,00
  029320-2), € 75,00

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88. **Statistics IIa for Econometrics**

**contact**
drs. S. Knypstra

**lecturer**
drs. S. Knypstra

**programme**
BSc Econometrics (core programme) year 2 compulsory

**language**
English

**period**
1.1

**EC**
5

**format**
practicals

**assessment**
assignment(s), written exam

**objective**
At the end of the course the student is able to apply the
statistical techniques covered during the course.

**content**
Statistical estimation and testing theory is studied from the
perspective of likelihood. The theory can be found in chapters
1, 2, 3 and 4 of the Azzalini textbook.

**literature**
- A. Azzalini, *Statistical Inference Based on the Likelihood*, 1996
  (ISBN: 0-412-60650-x), € 60,00
- S. Knypstra, *Syllabus Asymptotics*, 2005
89. **Statistics IIb for Econometrics**

   **contact** dr. P.W. Otter  
   **lecturer** dr. P.W. Otter  
   **programme** BSc Econometrics (core programme) year 2 compulsory  
   **language** English  
   **period** 2.1  
   **EC** 4  
   **format** combined lectures/tutorials  
   **assessment** written exam  

   **objective** Developing basic skills in the analysis and application of linear models and in designing test procedures.  

   **literature**  

90. **Stochastic Models**

   **contact** prof. dr. W.K. Klein Haneveld  
   **lecturer** prof. dr. W.K. Klein Haneveld  
   **programmes** BSc Econometrics (core programme) year 3 compulsory, Courses open to Exchange Students year 3  
   **language** English  
   **period** 1.1  
   **EC** 6  
   **format** lectures, practicals  
   **assessment** written exam  

   **objective** Students become familiar with some important stochastic models and get trained in building them for practical applications.  
   **content** In statistics, econometrics, OR, insurance, marketing, logistics and finance stochastic models play an essential role. A number of standard models are treated in this course, and many examples are given. Topics dealt with include: Markov chains with discrete time parameter, Poisson processes, Markov chains with continuous time parameter, renewal theory, queues and networks of queuing systems, reliability, Brownian motion and the Black-Scholes formula for option pricing.  

   **literature**  
91. **Stochastic Programming**

- **contact**: dr. M.H. van der Vlerk
- **lecturer**: dr. M.H. van der Vlerk
- **programmes**: Courses open to Exchange Students year 4, MSc Econometrics, Operations Research & Actuarial Studies (Operations Research) year 4 compulsory, MSc Econometrics, Operations Research & Actuarial Studies (electives Econcs, OR & AS) year 4
- **language**: English
- **period**: 1.1-2
- **EC**: 10
- **format**: lectures, assignment(s)
- **assessment**: computer test, written exam

**objective**: Obtaining insight in the possibilities to include uncertainty and risk in mathematical decision models.

**content**: This course consists of a series of formal lectures. Linear programming problems, of which some of the parameters are considered as unknown realizations of random variables, constitute the core of the course. The emphasis is on the various ways of (re-)formulating the problem, including the pros and cons of the concepts of risk and risk aversion. Model building is illustrated by means of both classroom examples and realistic models. A major application area of Stochastic Programming is Asset Liability Management (ALM). Therefore, whenever possible, general concepts are presented and illustrated in this context.

Special attention is paid to solution techniques such as large-scale LP, decomposition, convex programming, Monte Carlo simulation, and random search. Motivated by their important role in Stochastic Programming, theory and techniques from Non-Linear and Dynamic Programming are discussed.

Students are required to work out take-home exercises and to write a paper on a case, with the aim of acquiring experience with modeling and computation based on the software package SLP-IOR. Also, participants will present the results of their case studies during the lectures.

Key words: risk and risk aversion, chance constraints, recourse models, expected utility, solution methods.

Part D – University and faculty information

D1   Registration

D1.1 How to register/deregister for a RuG programme

Central Student Administration (CSA)
CSA can provide you with information on the following:
- registration and allocation of places
- registration/deregistration
- payment or reimbursement of tuition fees
- applying for a colloquium doctum
- declarations required by external institutions
- English, French or German translations of examination results.
See part D14.13 for contact details.

D1.2 Registering for courses
You must register via http://progresswww.nl/rug for all the courses and examinations you plan to do. This applies to students following the Bachelor-Master structure as well as students registered under the ‘old’ (doctoraal) programme.
You can use one of the computers at the Rekencentrum (Computer Centre, RC) to register (RC 0013, 0023, 0032, 0033 and 0046), but you can also register from home via the Internet.

Registration for a course is not without obligations. Once you have registered, you are expected to follow the course. Of course, you can still withdraw from the course within the registration period. If special circumstances compel you to withdraw from a course before it begins, you should inform the Faculty Information Desk. You must fulfil the requirements for the course before it commences, otherwise you will not be admitted to it. For more information, see the subject descriptions on the website for Economics: http://www.rug.nl/ocasys.

Registration for courses is only possible from seven till two weeks before the first lecture week.

The registration deadlines are therefore as follows:
- semester 1, block 1: by 21 August 2005 at the latest;
- semester 1, block 2: by 30 October 2005 at the latest;
- semester 2, block 1: by 29 January 2006 at the latest;
- semester 2, block 2: by 16 April 2006 at the latest.

N.B. Other faculties may have different registration periods.
Registration for students from other faculties
Students from other faculties should follow the same procedure as students of Economics and students of Management and Organization (i.e. via the ProgRESS WWW website). The above registration periods also apply for these students.
N.B. For General Studies Courses (AVV), first select ‘Algemeen Vormende Vakken’ in the menu at ProgRESS WWW, then the Faculty.

D1.3 How to register for examinations
Students must register for examinations via http://progresswww.nl/rug. You can use one of the computers at the Rekencentrum, and you can also register from home via the Internet.
You can register between four weeks and seven calendar days before the examination. N.B. registration is compulsory.

If you miss the registration deadline
Report to the examiner in charge immediately before the start of the examination. He/she will decide whether you may take the examination. There is no room for debate. You may be allowed to take the examination if there is room for you and if there are enough question and answer sheets.

When you register for examinations and courses, you will need the account number and password you have received from the university. When you attend an examination, you must be able to produce proof of registration as a RuG student (student card) as well as proof of registration for the examination (print out ProgRESS WWW).

D1.4 Absence
If, due to illness or other special circumstances, you are unable to attend a practical, seminar or tutorial, you should notify the relevant member of staff in advance. If you are likely to be absent for an extended period of time, you should also notify your Study Advisor. See part D14 for department secretaries and part D4 for contact details and information about study advice.

D1.5 Lecture and examination timetables
An overview of the lecture and examination periods can found be at the beginning of this study guide. All timetables can be found at the relevant website: www.rug.nl/economics/informationfor/students/timeTables.
Groups for tutorials and practicals will be published on Nestor, select communities (http://nestor.rug.nl).
D2 Regulations, rights and obligations

D2.1 Exemptions
Exemption from certain examinations may be granted provided that the requirements have been met (previous qualifications and results). It is not possible to summarize all the requirements here. Exemption request forms can be downloaded from the website. Forms are available on [www.rug.nl/economie/formulieren](http://www.rug.nl/economie/formulieren). You should hand in the form and documentary evidence at the Information Desk, WSN 203-205.

Courses for which an exemption has been granted will be awarded a grade of 6. A higher grade may be awarded for exemptions at the request of the Board of Examiners (this applies only to the Faculty of Economics). Exemptions will not be granted once the examination has been taken. This applies to students in either Faculty. Exemption grades will not count towards the performance standard (prestatienorm according to IBG).

NOTE: If you take an examination for which an exemption has been granted, the exemption will be cancelled. In case of doubt, contact your study advisor (see part D14 for contact details).

D2.2 General Studies Courses (AVV, Algemeen Vormende Vakken)
All students must take a General Studies Course (AVV) in the third year of their Bachelor’s degree programme (see OER Article 2.4). The university offers a wide range of General Studies Courses. They are designed to introduce students to a new subject area. You will find a list of AVV courses in the brochure ‘Keuzegids Algemeen Vormende Vakken 2005-2006’, which is available from mid-June from the Syllabus Shop of the Faculty of Economics and the Faculty of Management and Organization. The Board of Examiners may accept other courses as AVVs at the student’s written request. Students of IE&B, FE and TM are exempted from this AVV requirement.

You can find more information on: [www.rug.nl/avv](http://www.rug.nl/avv). You can enrol for AVV subjects via [http://progresswww.nl/rug](http://progresswww.nl/rug). N.B. to register for an AVV, first select ‘Algemeen Vormende Vakken’ in the menu, and next the relevant Faculty.

D2.3 Examinations
Examination results must be published no later than 15 working days after the date on which the examination was taken. Only results published by the Student Administration Office are legally valid.

Examination results are published via ProgRESS WWW ([http://progresswww.nl/rug](http://progresswww.nl/rug)). You will need your student number and password to access your results. All new first-year students will receive a letter containing their password. If you have forgotten your password, you can obtain it from the Helpdesk on the ground floor of the Rekencentrum (Computer Centre).

Examination results are confidential, which means that no information can be disclosed by telephone or to third parties.
Examination scripts will be available for inspection up to four weeks after results have been published. Within the specified period, students can inspect questions or assignments relating to the examination, as well as the marking criteria. Details of the inspection procedure will be published through Nestor.
If you have a question about your results, the Information Desk will be able to help. Remember to take your student card and a printout of your results.

**Resits**

Resits will take place in the half-semester directly after the regular examination has taken place. Different rules apply to courses that are offered twice a year. Details can be found under the individual subject entries in this study guide, or in the subject database on the website, www.rug.nl/ocasys.

**Feedback on study results/advice on the propaedeutic phase**

First-year students of the Faculty of Economics receive their results by mail after the first half semester and in May or thereabouts. The overview of results sent out in May is accompanied by study recommendations.

The recommendations are based purely on the results. The main purpose of the recommendations is to help students decide whether to continue with their course of study. This is based on the self-selection principle. It is highly unadvisable to ignore the recommendations, particularly given the limited length of time for which student grants are available. If you are in doubt as to which subject(s) to choose, or whether to continue studying, it is best to consult a study advisor as soon as possible rather than waiting for the study recommendations. In September, the Faculty of Economics sends out an overview of results to all students.
You can check your results at any time via ProgRESS WWW.

**D2.4 Right of appeal**

If you disagree with an examination result or regulation you can lodge an appeal. If you wish to do this, contact your study advisor. Also see the ‘Student Regulations’ and the ‘Regulations and Guidelines’ on the CD-Rom.

**D2.5 Teaching and Examination Regulations (OER)**

The OER (*Onderwijs- en ExamenRegeling*) sets out the programme structure. It also sets out the rights and obligations of students. A separate OER CD-Rom has been compiled for the bachelor’s and master’s programmes offered by FBK and FEW.

**D2.6 Regulations and Guidelines**

The Regulations and Guidelines describe how the OER is implemented in practice. The Regulations and Guidelines can be found on the CD-Rom.
D3 If you have doubts about your study

D3.1 Transferring/deregistering

Transferring to another discipline
If, during the academic year, you wish to transfer to another programme at the RuG or another institution, you should contact the Central Student Administration office (CSA) at Broerstraat 5 (tel. 050-363 5274). It is only possible to transfer if the programme in question does not have a fixed intake (numerus fixus). If you wish to stop studying altogether, you must deregister through the CSA office. It is advisable to contact your study advisor before transferring. Make sure you receive all the information you need from a student counsellor at the Student Support Service (STAG) about the possible consequences for your student grant and your IBG performance-related grant. A brochure with the details can be obtained from CSA or from STAG. See part D14.13 and D14.14 for contact details.

Higher Professional Education (HBO)
HBO programmes often have two intake dates. If you wish to transfer to a HBO programme, you can begin the propaedeutic phase in September or February. You should apply at least one month in advance to the relevant HBO institution, and consult the study advisor there.
D4 Supervision/study skills

D4.1 Study advisors
Not all students will reach the end of their programme without encountering problems. Successful studying depends on many different factors, so it is understandable that students sometimes need to consult an impartial expert to iron out any difficulties.

The study advisors of the Faculty of Economics are Annemieke van der Kolk and Jos Karssies. They can help you if you have problems relating to your programme and/or to studying in general, for example:
- Have I chosen the right programme?
- Do I have what it takes to succeed?
- Can I stop studying for a period of time?
- Which master’s degree programme or academic discipline is the best one for me?
- How do I arrange my study abroad?

The study advisors can help to answer questions of this type, and they can advise on progress requirements, effective study planning, top-sport schemes, finances, exemptions, elective courses, etc. They can also deal with complaints relating to sexual harassment, problems with supervisor contact, etc.

You should contact the study advisors as soon as possible if you are experiencing personal problems (e.g. illness, disability, family problems, dyslexia). They will be able to advise you on special types of assistance and will help you to compile a suitable study programme. It goes without saying that all matters remain confidential.

D4.1.1 Office hours
The study advisors have the following office hours:

- Telephone office hour for straightforward questions: Tuesday - Friday from 9 to 9.30 a.m. Tel. (050) 363 3759.
- Individual appointments (which usually last approximately 30 minutes) can be made at the Information Desk or via the telephone: (050) 363 3759.
- In addition, Jos Karssies holds daily open office hours from 9.30 to 10 a.m. for brief enquiries (max. 10 minutes).

If you have a standard question, you may be able to find the answer via the Economics website: www.rug.nl/economics/studyadvisors.

D4.2 Student Support Service Groningen (STAG)
Students of the University of Groningen (RuG) can contact STAG with all kinds of questions. STAG can assist current students as well as new students from the Netherlands and abroad, final-year students and graduates. Details of how STAG can help are given below. If STAG staff is unable to answer your question, they will of course refer you to the right organization to help you.
Do you have any questions about anything to do with studying? The STAG Information Desk can answer straightforward questions about matters such as study choice, admission, registration, allocation, transferring to another programme and ending your studies altogether, study delay, finances and careers. The staff at the Information Desk can make an appointment for you with a student counsellor if you have a complex or private matter to discuss. At the Information Desk you can also make an appointment to see one of the advisors at the Careers Advice Centre (LAC), or sign up for a LAC workshop. See part D14.14 for contact details.

Are you experiencing problems with serious study delay or a complex personal or financial matter? The student counsellors will be able to give you individual advice. They specialize in dealing with financial matters, registration and deregistration, study choice and complaints and appeal procedures. They can also advise students with a performance disability. The student counsellors have information about many facilities and organizations that may be able to help you. In cooperation with the Student Support Service, the counsellors also run a workshop on study choice in Dutch. In the event of a study delay of more than 10 EC credits, it is essential to make an appointment with a student counsellor to discuss financial consequences. You should always report a study delay to your programme’s study advisor immediately, even if your delay is less than 10 EC credits! More information about study delay can be found on the website: www.rug.nl/studievertraging. You can make an appointment with a student counsellor at the STAG information desk. See part D14.14 for contact details.

If you would like to help organize one of the many events for students and prospective students, contact Martin Althof on (050) 363 8066.

STAG has two departments that deserve separate mention: the Information Library for Study & Careers and the Careers Advice Centre.

D4.2.1 Information Library for Study & Careers (ISB)
The ISB is a documentation centre where you can find information on the following subjects: higher education (university and higher professional education) in the Netherlands, studying and traineeships abroad (including how to finance them), careers in the Netherlands and abroad (see also the Careers Advice Centre). Career-related information includes job applications, tests, professions, companies and organizations, etc. The information is in the form of brochures, study guides, reference works, vacancy bulletins, databases (e.g. Elseviers Fondsendisk) and CD-Roms (e.g. Loopbaantraject). A selection of relevant websites is also available.
D4.2.2 Careers Advice Centre (LAC)
If you are about to graduate or have recently graduated, the Careers Advice Centre (LAC) can help you to choose a career. It is an expertise centre for graduates. In addition to extensive documentation (see the Information Library for Study and Careers), the LAC can also arrange an appointment with a careers advisor. You can also follow one of the courses or free workshops organized by the LAC to help you make a career choice and apply for jobs. The LAC courses and workshops are in Dutch. Non-Dutch students can consult a careers advisor. Details of all LAC activities can be found on the website: www.rug.nl/lac. See part D14.14.1 for contact details.

D4.3 Study Support
Study Support offers a variety of courses for students: ‘study courses’ on successful studying, dealing with stress and exam nerves, and a ‘Thesis Acceleration Group’, courses on general communication skills, e.g. verbal presentations and academic writing skills, and courses to ease the path to a career, e.g. self-analysis and job applications. Most courses are offered in Dutch. Courses offered in English are ‘Study Skills’ and ‘Giving a Presentation’.
For the full range of courses, see www.rug.nl/so.
The registration fee is € 20,- and all courses are free of charge. The easiest way to register is to visit the office. Opening hours: Monday to Friday from 8.15 a.m. to 5 p.m. See part D14.14.2 for contact details.

D4.4 Student psychologists
Student psychologists can help with problems relating to studying and study choice, social contacts and relationships, relationship with parents, making decisions and choices, stress and phobias, depression and assertiveness problems. Support is provided in the form of a short series of individual sessions. The support provided is tailored as far as possible to your own wishes and circumstances. In addition to individual sessions, there are also group sessions, e.g. for therapy and assertiveness training. Confidentiality is guaranteed.

Office opening hours:
Monday to Friday: 9 a.m. to 12.30 p.m. and 1.30 to 4.45 p.m., except Wednesday mornings (closed until 10.45 a.m.). Oude Kijk in ‘t Jatstraat 41/41a, 9712 EC Groningen, tel. (050) 363 5544. E-mail: studenten.psychologen@bureau.rug.nl.
D5  Study delay

D5.1  Study delay/personal circumstances

If you fall behind with your studies, make sure you report this as soon as possible!!

If your studies are hindered by difficult circumstances (e.g. illness, disability, family problems, pregnancy, dyslexia), you should notify your study advisor immediately. Your study advisor will register your study delay and advise you on how to proceed. Students who are entitled to a study grant from the IB-group can apply for financial assistance from the university’s Graduation Fund if they report the problem within one month of it arising. Students are responsible for reporting study delays to the correct department within the specified time. You should therefore make sure that you are familiar with the Graduation Fund regulations. For more information, contact or visit the Groningen Student Support Service (STAG), tel. (050) 363 8004, or consult the RuG website (www.rug.nl/studievertraging) or the Student Regulations on the CD-rom.

When planning facilities, the University of Groningen makes every effort to take account of the needs of students with a performance disability, chronic illness or dyslexia. The most important university buildings all have wheelchair access. A number of lecture rooms have an induction loop for the hard-of-hearing, and the university library has facilities for students with a visual handicap. There are also several types of financial assistance if your studies have had to be delayed. If you have questions on this subject, please contact a study advisor or the Student Support Service (STAG). See part D14 for contact details.
D6  Studying abroad

If you choose for a period of studying abroad, it is important that you are well informed about the opportunities and that you prepare thoroughly for the period of study abroad. The most important points are your choice of foreign university, courses and any supplementary grant applications.

D6.1 FBK/FEW Exchange Office

The Exchange Office is located in WSN 213. More information can be found on the website.

- The address for FBK students is:
  www.rug.nl/fmo/internationalstudents/internationaal.
- The address for FEW students is:
  www.rug.nl/economics/informationfor/students/internationaal

The Exchange Office has documentation available in the form of student reports and prospectuses. See part D14.5 for contact details, opening hours and office hours. Information is also available from the ISB (Information Library for Study & Careers), which is part of STAG.

D6.2 International Relations Office (BIS)

The BIS International Service Desk provides information on university-wide programmes, such as exchanges with Australia, Canada, China, Japan and New Zealand, VSB grants and grants relating to Cultural Accords.

Most of the information for students relating to study and internships (including information about the above programmes) can be consulted at the university’s Information Library for Study & Careers.

For additional addresses, see part D14.
D7  Graduating

D7.1 Approval of the study programme

Bachelor’s degree programme
Your bachelor’s degree programme should be approved at least three months before the planned graduation date. It is strongly advised to have it approved a year in advance, as this will allow you time to take any extra examinations if your programme does not meet the requirements. If needed, it is possible to amend the programme in consultation with the programme coordinator. An approval form for the degree programme can be downloaded from the website. Economics forms are available on www.rug.nl/economie/formulieren. You should hand in the form at the Information Desk, WSN 203-205.

Master’s degree programme
Your master’s degree programme should be approved no later than three months before the planned graduation date. This will allow you time to take any extra examinations if your programme does not meet the requirements. If needed, it is possible to amend the programme in consultation with the course coordinator. An approval form for the degree programme can be downloaded from the website. Economics forms are available on www.rug.nl/economie/formulieren. You should hand in the form at the Information Desk, WSN 203-205.

N.B. The above also applies to doctoraal programmes.

D7.2 Economics and Management and Organization Science Shop
(Research Bureau & Internship Desk)

Melchior Bauer (Economics) and Elisa Staal (Management and Organization) went to Nicaragua to carry out research for the Science Shop and the Groningen-San Carlos twinning project into whether housing construction can be financed through microcredit. The research brought the Mayor of San Carlos to Groningen with plans to build 100 homes. The Nijestee housing corporation and KAW Architects are currently working on the project.

• Are you interested in doing research that won’t gather dust?
• Are you looking for a unique research topic or internship?
• Would you prefer effective consultation and feedback, rather than struggling to write your thesis on your own?

Then get to know the FBK and FEW Science Shop. The Science Shop offers students the opportunity to gain research experience in a practical social context. Research has been commissioned by organizations such as the Wadden Sea Association, the Centre for the Arts, Chamber of Commerce, centres for International Co-operation, ministries and environmental organizations. Internship places are provided by companies and the larger non-profit organizations.
Publication and publicity
Your research will be published by the Science Shop. Research of this type often receives coverage in the media (e.g. newspapers, TV or radio). Sometimes it can even lead to questions in parliament.

More information
If you want to find out whether the Science Shop has a project or traineeship that interests you, visit: www.rug.nl/wewi/dewetenschapswinkels/economie/index. You can also apply to join the mailing list for completed final-year projects. See part D14 for contact details.

D7.3 Degree certificate ceremonies

Propaedeutic certificate
Students need not submit a request for a propaedeutic certificate. If the administrative records are complete, it will be prepared automatically. Students will be notified. Please report to the Information Desk if you have met all requirements for receiving the propaedeutic certificate but have not received notification. Graduation dates will be published in the UK (university newspaper).

Bachelor’s degree certificate
There are two bachelor’s degree certificate ceremonies per year. Application forms for participation in the ceremony must be handed in at least six weeks in advance at the Information Desk, WSN 203-205. You can download the form from the faculty website: www.rug.nl/economie/formulieren. You may only apply for participation in a degree certificate ceremony after your study programme has been approved and after all results have been processed by the Education Administration Office.

Master’s degree certificate and doctoraal degree certificate
There are a number of master’s and doctoraal degree certificate ceremonies per year. Degree certificate ceremonies usually take place on the last Friday of the month for Economics and on the last Monday of the month for Management and Organization. You should apply for participation in a degree certificate ceremony at least six weeks in advance by means of the application form which can be downloaded from the faculty websites: www.rug.nl/economie/formulieren. You should hand in the form at the Information Desk, WSN 203-205. You may only apply for participation in a degree certificate ceremony after your study programme has been approved and after all results have been processed by the Education Administration Office. The degree certificate will be dated to the last working day of the month during which the last result was achieved. N.B. The CSA will not automatically deregister you as a student on this date.

Deregistration
In order to deregister, you must submit a ‘Request for Deregistration/Reimbursement of tuition fees’ to the CSA. You can pick up a folder about deregistration from the CSA or the STAG. When you deregister, remember to hand in your student travel
pass (OV-jaarkaart) and cancel your IBG-student grant. This will not be done automatically. You must arrange this yourself with the *Informatie Beheer Groep* (IBG).
D8 Research

D8.1 Honours bachelor’s degree programme

The SOM research school (see below) offers an Honours bachelor’s degree programme for students in Business Studies and Economics who are interested in research and who want to lift their studies onto a higher level. This programme can in principle be followed within any Bachelor’s degree course. Each admitted student is assigned to a ‘fellow’, a researcher with ample research experience on an international level. They develop a study programme together that leaves room for a number of research projects for which credits can be gained. The research is supervised by the researcher concerned. He/she will involve the student as much as possible in his/her own research, to teach the student what doing research really means and how much fun it can be. The study programme will also leave room for modules that may benefit the research. This programme also needs to be discussed with the coordinator of the course concerned. The Board of Examiners is responsible for the final approval of the study programme. In addition, SOM organizes various group activities for participating students, which focus on teaching research skills. The Honours bachelor’s degree programme is an ideal stepping stone for the Research/Top master’s programme, but it is certainly not exclusively meant for students who are considering following this two-year programme after they have finished their bachelor’s degree programme.

Admissions procedure: if you are interested, please contact Dr Bart Los, SOM Honours bachelor’s degree programme coordinator. He will hold the intake interviews, in which the student’s motivation is very important.

Information meeting: in October. The meeting will be announced on the faculty websites and in the UK, and students who have performed above average in their first year will receive a personal invitation. Feel free to contact dr. Bart Los, tel. 050-363 7317; e-mail: b.los@rug.nl; WSN 352 for more information.

D8.2 SOM

SOM is the joint research school of the Faculty of Management and Organization and the Faculty of Economics at the University of Groningen. Researchers have to meet the entry criteria, which mainly relate to academic publications in international periodicals, to be admitted into SOM. SOM’s main aim is to stimulate monodisciplinary and interdisciplinary research that meets high international standards. As a part of this, SOM provides training to academic researchers in three phases. In addition to the Honours bachelor’s degree programme, SOM is also responsible for the two-year Research master’s programme and for training PhD students.
D9  After graduating

D9.1  Orientation towards the labour market before graduating

It is a good idea to start considering a career during your studies, and in any case in your final year. A number of organizations hold information events and courses for this purpose. They are organized by the Careers Advice Centre (LAC) and Student Support (SO), among others. An overview of the dates of events and courses is sent to all final-year students’ home addresses, published in the UK (university newspaper) and on the LAC and SO websites, and posted in the WSN building. The Careers Advice Centre also offers advice by a career consultant. Consult the LAC website for information about the open consultation hours and the quarterly news letter. Student societies also organize regular company visits and information days, sometimes calling on LAC expertise.

D9.2  Job-application course

The faculties run a job-application course in co-operation with the LAC (Careers Advice Centre) for final-year students. The course is designed to do much more than teach students how to write an application letter. You will learn how to set yourself apart from other applicants with the same qualifications. You will learn to identify your strengths and weaknesses, how to write a good letter of application and CV, and you will have the opportunity to practice interview techniques. You can register and find more information on the LAC website: www.rug.nl/lac (in Dutch). See part D14 for contact details.

D9.3  Career perspectives for graduates with a bachelor’s degree

If you want to offer your skills in the labour market, you will need to know what is required of an Economics or Management and Organization graduate and you must assess and develop your own competences. The Bachelor’s degree programme offers a module in economics and business, communication and education (Economie en Bedrijf, Communicatie en Educatie) that deals in depth with all aspects of economics in the business world. This 5-EC module is held in the second half of semester 1. More information about this module can be found on the Internet, or contact Geert Hoevers or Louwrens Wouda (tel.: (050) 363 3738, e-mail: a.w.g.hoevers@rug.nl or l.wouda@rug.nl).

You can also contact one of the faculty study advisors for questions and advice on career opportunities.

D9.4  Effective Discourse

The effectiveness of a manager or advisor is largely determined by his or her communication skills.

This optional module teaches you a variety of skills in the areas of oral presentation, dialogue (such as job interviews), debating, negotiating and conflict management, by means of practical assignments as well as theoretical concepts, models and tips.
Study guide 2005-2006 Econometrics/Economics

You will also gain a better insight into the competencies and qualities you already have and the ones you might develop further. This is done on the basis of a Personal Development Plan (PDP) which serves as a guide throughout the course. The feedback by your lecturer and fellow students will clarify your self-image. You will gain more insight into your communication skills and which type of organization or environment would be most suitable for you, and you will learn how to apply for a job effectively. In other words, this optional module will help you increase your chances on the labour market.

Effective Discourse is offered in all four half-semesters.
For more information see Internet or Nestor or contact Ms I. van Est, tel: 050-363 3458, WSN room 816.

N.b.: Unfortunately, most of the events and courses mentioned in this chapter are offered in Dutch.
D10 Paying for your studies

D10.1 Graduation Fund
If your studies are hindered by difficult circumstances (e.g. illness, disability, family problems, pregnancy, dyslexia), you should notify your study advisor immediately. He or she will file an initial study delay report. The sooner you inform your study advisor of any circumstances that might delay your studies (within four weeks at the latest), the greater the chance that you will be entitled to financial compensation for this delay from the Graduation Fund.

You should also report to the STAG student counsellor if your delay may add up to more than 10 EC credits. **Students are responsible for reporting study delay to the correct department within the specified time.** One of the basic conditions for financial compensation from the Graduation Fund is that you report your study delay. You should therefore make sure that you are familiar with the Graduation Fund regulations. Please contact STAG for further information, or consult the RuG website (www.rug.nl/studievertraging) or the Students' Regulations.

For further information, contact your study advisor or the STAG Information Desk (tel. 050-363 8004, e-mail: stag@bureau.rug.nl).

D10.2 Emergency Fund
Are you facing unexpected major expenses which may result in an acute financial emergency? The Emergency Fund offers help in the event of unexpected expenses that you cannot afford and that you cannot be expected too be insured against. Examples are expenses for certain types of psychotherapy, dyslexia treatment in the Bachelor phase and specialized treatment for learning problems, costs of a diet, dental treatment, special family circumstances or fire damage. Emergency Fund requests must be sent in writing. Please contact STAG for more information, or consult the RuG website (www.rug.nl/stag).

D10.3 Performance-related grant
Students who registered in higher education for the first time after 1 September 1996 may qualify for a performance-related grant from IBG. Students who enrol in a 4-year course are entitled to a 4-year (provisional) performance-related grant and a 3-year interest-bearing loan. If you graduate within ten years (the performance requirement), your loan will be converted into a grant. Please contact STAG for more information.

D10.4 '1 February rule' for first-year students
First-year students in higher education (HBO and WO) who cancel their IBG-grants before or with effect from 1 February can have their loan for the first five months converted into a grant. You may not apply for a higher education student grant again during the same academic year.
D10.5  Counting credits
The following credits count towards the total for a given academic year:
• credits from other faculties
• credits from higher professional education (HBO)
Students are responsible for reporting their own results to the Student
Administration Office (Onderwijsadministratie). An official examination-result
certificate showing the relevant credits must be submitted.
Credits are awarded on the basis of pass marks (5.5 or higher). If a Faculty of
Economics course has partial exams, the credits are awarded for each interim exam
passed (i.e. 5.5 or higher).
Credits are counted from 1 September to 31 August of the current academic year.
This means that credits obtained for August resits count towards the total.

D10.6  Cost policy
A total of € 624,- per year is usually sufficient for compulsory books, lecture notes,
manuals etc. The propaedeutic phase should cost no more than € 624,-.
The RuG has a policy on study costs. The policy aims to control costs so that the
‘study cost’ component does not exceed grant/loan budgets. The amount that
students are required to spend on study materials will therefore not exceed the
government grant. The standard sum for 2005-2006 is € 624,-. Each course phase has
a cost ‘ceiling’ (standard sum x length of course).
Sometimes it is not possible to avoid going above the ceiling amount. In such cases it
is possible to apply to the Faculty Board for reimbursement of half the extra
expenditure on the basis of receipts submitted as proof. Sometimes another
arrangement may be possible.

Students of Management and Organization can apply for reimbursement of study
costs at the faculty’s Financial Administration Office (WSN 611). You will need to
provide your name, address, student number and bank account or giro number.
Receipts for all study materials should be enclosed, and the details entered on a
spreadsheet (including the total) for each block. The figures must show that actual
expenditure exceeded the ceiling amount set by the government (see above).
Applications without receipts etc. will not be considered.
D11 Complaints, suggestions and quality management

D11.1 FBK/FEW Student Complaints Procedure

It is important to the Faculties of Economics and Management and Organization that you enjoy your studies and that you complete them successfully. If you have any comments, suggestions and/or complaints about your programme or in general, please don’t hesitate to do something about them. There are various ways of doing this, depending on the nature and seriousness of the matter.

Personal contact with those directly involved is usually the best solution. In by far the majority of instances, the best course is to establish personal contact with those directly involved. The member of staff in question will usually prefer to solve the problem with you him or herself. Thus the best place for a complaint about a module is the lecturer or the relevant secretariat. If your complaint concerns the organization of a module, for example timetables, dates of examinations, the registration of results or the degree certificate ceremony, then the best place to go is the Information Desk.

If the contact and/or the result is not satisfactory or your problem is more personal, then you can approach a study advisor for a confidential discussion, or contact someone from outside the faculty, for example a student counsellor (STAG) or the RuG mediator (see part D14 for contact details). They can act as a go-between and inform you of other avenues of approach, including the Board of Examiners (see the Teaching and Examination Regulations and the Rules and Regulations on the CD-Rom).

It is also a good idea to ask other students for advice. The student unions (ECU or Quest) will be interested to hear of your complaint, and will be able to advise you or act on your behalf. The staff at the Information Desk will be happy to direct you to the right person and/or department.

If personal contact does not lead to the required result

It is possible that personal contact may sadly not lead to the required result. In that case, please complete a ‘complaints card’ available from the Information Desk. You can then be sure that your complaint, suggestion and/or comment will receive attention! It goes without saying that it is important to remain in contact with the staff.

How does the complaints card work?

The card is available from the Information Desk and via the Internet. Completed complaints cards provide the faculty with information about the nature and extent of the questions, comments and complaints of students. This means that structural solutions for common irritations can be realised more quickly. The procedure followed after receipt of a complaints card is set out below.

The Head of Student Affairs will deal with every complaints card within four weeks. Every complaint will be treated as confidential. This means that the name of the student will not be mentioned without the explicit permission of the student. In order to prevent abuse of the system, anonymous complaints or complaints where only an e-mail address is listed will not be considered.
The Head of Student Affairs will investigate the complaint and where necessary present it to the relevant committees and persons. Where necessary, follow-up actions will be agreed with the relevant persons/departments. These agreements will be set out and reported to the faculty boards (Course Supervisors). The student concerned will then be informed in writing by the Head of Student Affairs about the actions taken or to be taken.

D11.2 Educational Quality Management

The faculties are continually trying to manage and improve the quality of the education they offer. However, we cannot do this without the help of our students. You will therefore receive an e-mail after each exam period asking you to fill out a course evaluation form for all the modules you followed in the block in question.

Please complete the evaluation forms, because...
1. the feedback from the students who came before you has helped us improve the programme you are now following. We need your help to continue to improve.
2. the results of course evaluations of previous years can help you determine which optional modules, master's degree programme or profile you want to follow.
3. your opinion will help improve the quality of your programme, which is important for you as well. Graduating from a high-quality faculty will increase your chances on the labour market.

Please contact us per e-mail on onderwijskwaliteit.bdk.eco@rug.nl if you have any questions about educational quality. The results of each course evaluation are published in the Nestor community, under Onderwijskwaliteit.
D12   Facilities

D12.1 Libraries
The library of the Faculties of Economics and Management and Organization is situated on the ground floor of the WSN Building, opposite the lifts in the central hall. The library also houses the collections of Spatial Sciences, Mathematics and IT.

Opening hours:
Monday to Thursday:  9 a.m. – 6.30 p.m.
Friday:  9 a.m. – 5 p.m.

The Fiscal Economics collection is housed in the Law Library in the Harmoniegebouw.

Opening hours:
Monday to Thursday:  9 a.m. – 9.30 p.m. (9 a.m. - 5 p.m. during vacations)
Friday:  9 a.m. – 5 p.m.
Saturday:   10 a.m. – 4 p.m. (closed during vacations)

The University Library is open to all students. The University Library houses various collections and also has reading rooms where students can study.

Opening hours:
Monday to Friday:  8.30 a.m. – 10 p.m.
Saturday and Sunday:  10 a.m. – 5 p.m.

See part D14.11 for address details.

D12.2 Rekencentrum (RC, Computer Centre) Teaching Cluster
The Training Cluster of the Rekencentrum consists of a number of computer rooms that are available for PC practicals and other teaching purposes. The cluster is a joint project run by the RC and the faculties of Economics (FEW), Management and Organization (FBK), and Spatial Sciences (FRW).

For whom?
Students who meet all the following requirements may use the PCs in the Training Cluster:

- they must be registered as a student of the RuG at one of the following faculties: Economics, Management and Organization or Spatial Sciences, and have a valid student card
- they must be following a programme at one of the aforementioned teaching institutions
- a number of PCs are reserved at the cluster for specific courses
- they must use the PC for study-related purposes only.

Students who do not fulfil all the above requirements are not entitled to use the PCs and may be refused admission to the computer rooms.
Requesting an account
You will need to request an account in order to use the computer facilities. You can do this at the RC Service Desk (opposite the main computer room Plaza/Theaterzaal). Remember to bring your student card.

Opening hours
Monday to Friday: 9 a.m. – 8 p.m. The Teaching Cluster rooms close at 6 p.m. unless they are required for lectures or practicals. The main computer room Plaza/Theaterzaal closes at 8 p.m. The entire Teaching Cluster is closed on Saturdays. Different opening hours apply for the summer period (July-August): 9 a.m. - 5 p.m.

Location
Rooms 46 and 146 (Plaza/Theaterzaal, the large two-storey computer room, opposite the RC Service Desk at Landleven 1) are used as often as possible for general practical sessions. The other rooms are used for class teaching.

House Rules
- eating, drinking and smoking are prohibited in the computer rooms
- work areas should be left clean and tidy for the next user
- mobile phones are prohibited.
The full house rules can be found in appendix 6.

RC Service Desk
Staff at the RC Service Desk can answer questions about computer use in the Training Cluster, Landleven 1, tel. (050) 363 3232. The Service Desk can also provide assistance if you have problems using a computer during a course or practical session. The RC Service Desk is located opposite the main computer room Plaza/Theaterzaal.
Opening hours: Monday to Friday: 9 a.m. – 10 p.m.; Saturday: 10 a.m. – 6 p.m. During the vacation period (July-August): Monday to Friday: 9 a.m. – 5 p.m.

Software
Students can buy software at reduced rates via the SURFSPOT website. You can order software on this site, which will be delivered to your home address. See www.surfspot.nl.

Computer courses
In addition to courses in standard applications such as Word and Excel, a few RC courses specifically focus on the university community, such as SPSS and Reference Manager. You can even be awarded credits for following the Programming in C/C++ course. The computer courses are taught in the Zernikeborg (Nettelbosje 1). Up-to-date course information is listed weekly under ‘RC Informatie & Communicatietechnologie’ in the notices section in the UK. For more information and signing up: www.rug.nl/rc.
Internet
The RuG computer network enables students to access one of the world’s most advanced networks with trouble-free connections to the major Dutch, European and transatlantic networks. Students can use this feature in various ways, including via a PC in a computer room in the faculty or in the University Library. You can also access the university network via your own PC at home or in the university. See www.rug.nl/rc/internet for more information.

The address of the Rekencentrum can be found in part D14.

D12.3 FBK and FEW Syllabus Shop
Readers and lecture notes are for sale in the Sociale Ruimte (Social Area) on the ground floor of the WSN Building (WSN 008). The shop is open daily between noon and 2 p.m.

Summer vacation opening times for 2005 are as follows:
• Normal opening hours until 15 July.
• Between 18 July and 31 August, readers are available from the Financial Administration of the Faculty of Management and Organization, WSN 611, (tel. 050-363 3828).
• Study Guides are available from the Information Desk on the second floor.
• Open on 1 and 2 September from noon – 2 p.m.

Opening hours are extended at the start of every half-semester:
• 5 and 6 September: 10 a.m. – 4 p.m.
• 14 and 15 November: 10 a.m. – 4 p.m.
• 13 and 14 February: 10 a.m. – 4 p.m.
• 1 and 2 May: 10 a.m. – 4 p.m.

The shop is closed during the Christmas period (26 December – 6 January). All changes to opening times will be published well in advance in the UK (University newspaper) and on the Internet.

D12.4 Book sales
The EFV (Economics Students’ Society) and VESTING (society for students of Econometrics, Operational Research and Actuarial Studies) organize special book sales for members. They offer a 10% discount.
Book sales take place just before the start of each semester. EFV Boekenverkoop sends out an announcement letter to all students well in advance. Books are listed on the website (www.efv.nl and www.devesting.nl), and can be ordered via the Intranet (www.efv.nl/intranet).
D13  Practical information

D13.1 Change of address

If you move to another address you must notify the Central Student Administration office (CSA) of your new address. If you fail to do so in good time, you may not receive important faculty information relating to your studies. You can also register a change of address via ProgRESS WWW or per e-mail (csa@bureau.rug.nl). Always state your name and student number. Please do not report a change of address to your faculty administration. See part D14.13 for contact details for the CSA.

D13.2 Nestor

Nestor is the name given to the Electronic Learning Environment (ELO) at the RuG. The computer programme used to publish course information on Nestor is called Blackboard. You can use Nestor to download documents that lecturers make available for the courses (assignments, slides, old exam papers). You can find information about the weekly timetable, the literature you have to read, the lecturers giving the courses, etc. Certain courses use Nestor to exchange ideas with the lecturer and other students via e-mail, chat rooms and online discussions.

If your registration with the Central Student Administration is in order, you will have received a user name and password to use e-mail, ProgRESS WWW (needed to register for exams and courses) and Nestor. The password for Nestor is the same as the password for e-mail and ProgRESS WWW. Just log into Nestor with your student number with an s in front: e.g. s1234567.

You will need to open an account at the RC Helpdesk before you can use the computers at the Teaching Cluster.

The main requirement for using Nestor is that you register for your courses in ProgRESSWWW. You should therefore register for all courses via ProgRESS WWW.

The Internet address for Nestor is www.nestor.rug.nl. When you start up an RC computer, the homepage is www.rug.nl/student. From this page you can read your e-mails, view your exam results (in ProgRESS WWW) and access Nestor. Further information about Nestor can be found at the Faculty website: www.rug.nl/economics/informationfor/students/elektronischeLeeromgeving

D13.3 Study-load guidelines

These guidelines derive from the Wijnen Report Te doen of niet te doen? published by the Studeerbaarheid Committee, which expresses study load in pages per hour. For the calculation of the study load, a page was considered to consist of approximately 300 words.
<table>
<thead>
<tr>
<th>Learning goals</th>
<th>Difficult (book in foreign language)</th>
<th>Average (article in specialized journal)</th>
<th>Easy (case description, newspaper article)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>8 pages</td>
<td>13 pages</td>
<td>18 pages</td>
</tr>
<tr>
<td>General introduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outline of main points</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>6 pages</td>
<td>10 pages</td>
<td>14 pages</td>
</tr>
<tr>
<td>Mastery of conceptual framework</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conducting exercises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy</td>
<td>4 pages</td>
<td>7 pages</td>
<td>9 pages</td>
</tr>
<tr>
<td>Analysis, synthesis, evaluation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**D13.4 Important information about the programme**

Nestor is the faculty’s medium for important announcements about lectures, exams, information sessions and other ‘last-minute’ information for students. In addition to Nestor, you should also check the Announcements section in the UK (university newspaper) every week. The UK is published every Thursday and is available in the WSN building. UK announcements are also posted on the Internet: www.uk.rug.nl/rug-mededelingen/  
Once announcements have been published on Nestor and/or in the UK, students are expected to be aware of them.

**D13.5 Photocopying**

Photocopiers, which work using a magnetized card, are located in various university buildings. Photocopy cards can be obtained from the Copy shop in the Zernike building (€ 3,-/€ 5,-/€ 10,-) and from the Porters’ Lodge at the WSN building (only € 3,- cards).

**D13.6 Fire Drill**

A fire drill is carried out at least once a year in university buildings. Instructions can be found in Appendix 8.

**D13.7 Theft**

Thefts from lecture halls are a regular occurrence. Bags and coats are particularly vulnerable during breaks when the lecture hall is empty. It is advisable to make sure that there is always someone in the lecture hall during breaks. Never leave your coat or other property in the corridor during lectures – always take them into the room with you.
D14 Addresses

The most up-to-date information on telephone numbers, e-mail addresses and room numbers of staff at the Faculty of Economics and the Faculty of Management and Organization can be found at the following website:
http://www.rug.nl/economics/faculty/staff.

D14.1 Faculties of Economics and Management and Organization
Visiting address: WSN Building 203-205, Landleven 5, Zernikecomplex, Paddepoel 9747 AD Groningen, The Netherlands
Postal address: P.O. Box 800, 9700 AV Groningen, The Netherlands
Telephone and fax: +31 (0)50 363 3750/+31 (0)50 363 7020
Website: www.rug.nl/economics

Location of IDEA: Zernikepark 10

D14.2 Education Office
Visiting address: WSN Building, rooms 203-205, Landleven 5, Zernikecomplex Paddepoel
Postal address: P.O. Box 800, 9700 AV Groningen, The Netherlands
Telephone and fax: +31 (0)50 363 3750/+31 (0)50 363 7020
Opening hours: daily from 9.30 - 16.00 hours
E-mail FEW: onderwijsbalie@eco.rug.nl
Website: www.rug.nl/economics/education/InformationDesk

D14.3 Study Advice
Faculty of Management and Organization
Mr K.R. Labberté (WSN 219)
Ms E.I. Brilman (WSN 223)
Secretariat: WSN 225
Tel. (050) 363 3759
E-mail: studyadvisors-fmo@rug.nl
Website: www.rug.nl/bdk/informatievoor/studenten/studieadviseurs

Faculty of Economics
Mr J. Karssies (WSN 222)
Ms A. van der Kolk (WSN 221)
Secretariat: WSN 225, tel. (050) 363 3759
E-mail: studyadvisors-eco@rug.nl
Website: http://www.rug.nl/economics/studyAdvisors/

D14.4 Board of Examiners
Faculty of Economics and Faculty of Management and Organization
c/o Ms M.C. Christen (Secretary),
P.O. Box 800
9700 AV Groningen, The Netherlands
MSc BA and BSc/MSc Accountancy & Controlling
Dr T.A. Marra
P.O. Box 800
9700 AV Groningen, The Netherlands

D14.5 Exchange office FBK/FEW
Mw. W. Blink, WSN 236
Mw. A.J. Venhuizen, WSN 217
Appointments via the secretariat
Secretariat: WSN 213
Opening hours: Monday-Thursday from 10.00 to 12.30
Tel. +31 (0)50 363 6310
E-mail: int.office@eco.rug.nl
Websites: http://www.rug.nl/economics/informationfor/students/studyingAbroad/ or www.rug.nl/bdk/informatievoor/studenten/studerenInBuitenland

International Relations Office (BIS)/International Service Desk
Visiting address: Academiegebouw, Broerstraat 5 (2nd floor, West)
Tel. (050) 363 8181 E-mail: isd@bureau.rug.nl

D14.6 Teacher-training (Lerarenopleiding Economie & Bedrijfswetenschappen)
Drs. G. Hoevers and drs. L. Wouda, WSN 732
Telephone: (050) 363 3738 (Monday, Wednesday and Thursday)
E-mail: a.w.g.hoevers@rug.nl or l.wouda@rug.nl
Website: www.rug.nl/economie/informatievoor/studenten/opleidingen/post/lerarenopleiding

D14.7 Science Shop (Research Bureau & Internship Desk)
Coordinators: Ms Elise Kamphuis, WSN 651
Frans J. Sijtsma, WSN 647
Secretariat: Henk W. Janssen, WSN 649
Telephone: (050) 363 3810/7182/3754
E-mail: wewi@eco.rug.nl
Website: www.rug.nl/wewi/eb

Gamma
Coordinator: drs. N. Heimeriks, WSN 650
Telephone: (050) 363 3390
E-mail: gammasteunpunt@eco.rug.nl
Website: www.rug.nl/corporate/informatievoor/scholieren/gammasteunpunt/index
D14.8 SOM, Research school FBK/FEW
Mw. Rina Koning, Research coordinator, WSN 358
Telephone: (050) 363 3815 (7068 secretary)
E-mail: a.c.koning@rug.nl
Website: http://som.rug.nl

D14.9 Department secretariats FEW
Accountancy (and Fiscal Economics)
Mw. I.M. Luttmer-Noest, WSN 324
Mw. A.H.E. van de Voort-Toisuta, WSN 324
Mw. I.T.M. Wasser, WSN 324
Telephone: (050) 363 3768
E-mail: accountancy@rug.nl
Website: www.rug.nl/economie/faculteit/vakgroepen/accountancy

Economics
Mw. E.M. Baars-Drent, WSN 545 (Macro Economics & Public Finance)
Mw. H.C.E. van der Vleuten, WSN 545 (Micro Economics & Spatial Economics)
Telephone: (050) 363 7018 or (050) 363 3740
E-mail: e.m.baars@rug.nl or h.c.w.e.van.der.vleuten@rug.nl
Website: www.rug.nl/economie/faculteit/vakgroepen/dge

Business & ICT
Mw. G. Pol, WSN 449
Telephone: (050) 363 3685
E-mail: g.pol@rug.nl

Econometrics
Mw. E.S. Bennink - Bambang-Oetomo, WSN 260
Telephone: (050) 363 3460
E-mail: e.s.bennink@rug.nl
Website: www.rug.nl/economie/faculteit/vakgroepen/Econometrie

Finance, Investment & Accounting
Mw. G. Pol, WSN 449
Mw. N.R. Kempa, WSN 449
Telephone: (050) 363 3685/(050) 3633814
E-mail: g.pol@rug.nl or n.r.kempa@rug.nl
Website: www.rug.nl/economie/faculteit/vakgroepen/dfa

International Economics & Business
Mw. E. Kortrijk, WSN 541
Telephone: (050) 363 3716
E-mail: e.a.kortrijk@rug.nl
Website: www.rug.nl/economie/faculteit/units/IEB/index/
Marketing
Mw. H.G. Tamling, WSN 450
Mw. J.M. Wiersema, WSN 450
Telephone: (050) 363 7065/(050) 363 3686
E-mail: h.g.tamling@rug.nl or j.m.wiersema@rug.nl
Website: www.rug.nl/economics/faculty/units/marketing

D14.10 Departments FBK
For addresses and contact details please visit: www.rug.nl/fmo/faculty/departments

D14.11 Libraries
Library of Economics/Management and Organization/Spatial Sciences
Visitors’ address: ground floor of WSN building, Zernike Complex
Postal address: P.O. Box 800, 9700 AV Groningen
Tel. (050) 363 3708
Fax: (050) 363 3720
E-mail: biblio@eco.rug.nl
Website: www.rug.nl/economics/library

University Library
Visitors’ address: Broerstraat 4
Postal address: P.O. Box 559, 9700 AN Groningen.
Tel. (050) 363 5020
Fax: (050) 363 4996
E-mail: info@ub.rug.nl
Website: www.rug.nl/Bibliotheek

D14.12 Teaching Cluster and Rekencentrum (RC)

RC Service Desk and RC Service Centre
Visitors’ address: Landleven 1, Zernike Complex
Postal address: P.O. Box 11044, 9700 CA Groningen
RC Service Desk
Telephone: (050) 363 3232
E-mail: rcservicedesk@rc.rug.nl
Website: www.rug.nl/rc/helpdesk

RC Information and communication technology
Visitors’ address: Nettelbosje 1, De Zernikeborg
Postal address: P.O. Box 11044, 9700 CA Groningen
Telephone: (050) 363 9200
E-mail: secretariaat@rc.rug.nl
Website: www.rug.nl/rc
D14.13  Central Student Administration (CSA)
Visiting address: Academy Building, Building 12 (room 131), Broerstraat 5, Groningen
Postal address: P.O. Box 72, 9700 AB Groningen
Opening hours: 10.00 - 16.00, opening hours vary for the summer vacation (see UK announcements)
Telephone: (050) 363 5274
E-mail: csa@bureau.rug.nl
Website: www.rug.nl/csa

D14.14  Student Support Service Groningen (STAG)
Visiting address: Uurwerkersgang 10
Postal address: P.O. Box 72, 9700 AB Groningen
Opening hours: Monday to Friday, 10.00 to 16.00.
Opening hours vary for the summer vacation (see UK announcements).
E-mail: stag@bureau.rug.nl
Website: www.rug.nl/STAG

Important telephone numbers at STAG
- For questions about study delay, finances or choosing courses: (050) 363 8004
- For questions about course and placement opportunities in the Netherlands or abroad, or about career planning (connection between degree subject and careers): (050) 363 4665
- For questions about information sessions organized by the RuG: (050) 363 8025
- Information number for all other STAG business contacts: (050) 363 8066

D14.14.1  Careers Advice Centre (LAC)
Visiting address: Uurwerkersgang 10
Postal address: P.O. Box 72, 9700 AB Groningen
Opening hours: Monday to Friday, 10.00 to 16.00
Telephone: (050) 363 8004
E-mail: stag@bureau.rug.nl
Website: www.rug.nl/lac

D14.15  Study Support
Visiting address: Academy Building (Tower), 2nd floor, Broerstraat 5
Postal address: RuG Study Support, P.O. Box 72, 9700 AB Groningen
Telephone: (050) 363 5548; fax (050) 363 5539
E-mail: Y.M.Robert@bureau.rug.nl
Website: www.rug.nl/so
D14.16 RuG Mediator
Visiting address: Visserstraat 49
Postal address: P.O. Box 72, 9700 AB Groningen
Telephone: (050) 363 5435
E-mail: j.m.dam@bureau.rug.nl (mediator) or a.m.wildeboer-baar@bureau.rug.nl (secretariat).
Website: http://www.rug.nl/bureau/expertisecentra/vertrouwenspersoon

D14.17 Student psychologists
Oude Kijk in ’t Jatstraat 41/41a
9712 EC Groningen
Telephone: (050) 363 5544
E-mail: studenten.psychologen@bureau.rug.nl
Website: www.rug.nl/bureau/expertisecentra/sz/psychologen
D15  Student Organizations

Most student societies are housed in the Interimgebouw (Interim building) between the Computer Centre (RC) and the WSN building.

D15.1  EFV

The EFV (Economics Students’ Society) is the organization for students of the Faculty of Economics at the University of Groningen, and other students with an interest in the discipline. The aim of the EFV is to build a bridge between theoretical and applied economics. Students are given the opportunity to develop into professional economists by organizing and participating in EFV activities.

The following are examples of EFV activities:
- International Study Projects (SIS)
- Groningen Economists’ Congress
- Recruitment Days
- EFV Almanac
- Gala
- Introduction Camp
- Training Day
- Emerging Business Day
- Leadership Panel
- Consultancy Game
- Masters’ Day
- Junior Students’ Day
- Book sales

Information: EFV, P.O. Box 800, 9700 AV Groningen. Tel.: (050) 3633702, fax: 050-3637208, e-mail: efv@efv.nl, website: www.efv.nl.

D15.1.1  B-yond

B-yond is the sub-structure of the EFV for International Economics & Business (IE&B). Through a variety of activities, B-yond attempts to forge links between academic courses and the world of international commerce. These activities are organized for students of the IE&B programme, and other students who are interested in the discipline.

Activities:
- Annual symposium
- Business excursion
- Business excursion abroad
- Socials

For further information: B-yond, P.O. Box 800, 9700 AV Groningen, tel. (050) 363 3659, fax (050) 363 7208, e-mail: info@b-yond.org, website: www.b-yond.org. Visiting address: Interimgebouw 0001.
D15.1.2  CreDes
CreDes (Creative Destruction) is an organization for students of General Economics and anyone with an interest in that subject. CreDes is part of the EFV. The aim of the organization is to make economic theory more dynamic and lively.
Information: CreDes, P.O. Box 800, 9700 AV Groningen. Tel. (050) 363 4536, faxnr. (050) 363 7208, e-mail: credes@eco.rug.nl, website: www.credes.nl.

D15.1.3  VESTING
VESTING is the organization for both bachelor and master students of Econometrics. The aim of the organization is to narrow the gap between theory and practice in the discipline of Economics and Operations Research. It also aims to promote contact between members and offer them the opportunity to develop organizational skills.
Information: VESTING, P.O. Box 800, 9700 AB Groningen, tel. (050) 363 7062, fax. (050) 363 7208, e-mail: info@devesting.nl, website: www.devesting.nl. Visiting address: Interimgebouw 0002..

D15.1.4  RISK
RISK is the Finance student organization for the Faculties of Economics and Management and Organization. It is part of both the EFV and BIG. RISK organizes activities for students who are interested in Finance, Investment, Accountancy & Controlling.
RISK is a professional and enterprising society that organizes high-quality, relevant activities in the fields of finance and economics. Our aim is to bring together students and companies through a variety of channels.
Information: Financiele Studievereniging RISK, Interimgebouw 0004, P.O. Box 800, 9700 AV Groningen. Tel. 050-3637306, Fax. 050-3633787, e-mail: info@verenigingrisk.nl, website: www.verenigingrisk.nl.

D15.2  MARUG
MARUG is a student society for students interested in marketing that gives you the chance to experience marketing in practice. MARUG:
• organizes Marketing events – for example Congress, Advertising Day, Marketing Game, Brand Experience, Marketing Class, Recruitment Dinners, Recruitment Days and the National Marketing Game
• arranges contact with companies
• publishes the Marketing magazine Markant
• helps you to broaden your study
• provides committee experience
For more information about these vents and the latest MARUG news, please visit the website: www.marug.nl. Would you like to organize one of these activities? Just get in touch with us. If you have any questions you can always mail us at info@marug.nl or drop into our room: Interimgebouw 123, tel. 050-3637014.
D15.3 Integrand

Integrand is a national non-profit organization that aims to further students’ business skills. Integrand offers internships, business courses and training modules to help students gain practical experience while still at university.

Activities (internships, on-the-job training and work assignments):
- Projects varying from 1 to-12 month placements with an organization
- Final-year options in various fields, including Marketing, Finance, Small Business & Entrepreneurship, Accountancy & Controlling, Econometrics, Human Resource Management
- Market research or research into an organization
- Internships with regular employer contacts.

Information: Integrand Groningen, Sint Walburgstraat 22c, 9712 HX Groningen, tel. (050) 314 5211, e-mail: groningen@integrand.nl, website: www.integrand.nl.

D15.4 AIESEC

AIESEC is the largest international, non-profit organization of university students, with branches in 89 countries and 800 universities.

Activities:
- Ambassador Programme for first and second-year students
- International internship programme
- Global Experience Programme
- Make a Move Career week

The international internships have either a commercial or a humanitarian character and are open to students with a minimum of 120 EC.

Information: AIESEC, Sint Walburgstraat 22B 9712 HX Groningen. Tel. (050) 363 3752, fax (050) 363 7928, e-mail: groningen.nl@aiesec.net, website: www.aiesec.nl.

D15.5 ECU

The ECU (Economists’ Union) is an organization that represents the interests of all students at the FEW (Faculty of Economics). Its aim is to monitor and promote the quality of the education. Tel. (050) 363 3703, e-mail: info@economenunie.nl, website: www.economenunie.nl. Visiting address: Interimgebouw room 0020.

D15.6 VERAF

VERAF is the alumni organisation for graduates of the Faculty of Economics. The aim of VERAF is to foster contact between alumni, and between alumni and the faculty. What does VERAF offer? VERAF membership comprises: membership of the Groningen Economists’ network, the VERAF Almanac, the VERAF newsletter, the Economisch Magazine (5 issues per year), considerably reduced fees for the annual Groningen Economists Congress, and admission to national events such as the VERAF Dinner and the enjoyable Spring Meeting. For more information: VERAF, P.O. Box 800, 9700 AV Groningen. Tel. (050) 363 3741, fax. (050) 363 3720, e-mail: info@veraf.nl website: www.veraf.nl.
D15.7 Omega
Omega is the alumni society for graduates of Econometrics and Operations Research. Its aim is to maintain and renew contacts. Activities are held several times a year and include socials, excursions and lectures. Membership is part of the VERAf plus membership. The membership fee is € 27,50 per year. Omega members are entitled to discount on (or free admission to) all VERAf activities. Members also receive the *Economisch Magazine* and the VERAf Members’ Almanac.
Information: Omega, c/o VESTING, P.O. Box 800, 9700 AV Groningen. E-mail: mail@alumniverenigingomega.nl, website: www.alumniverenigingomega.nl.
Appendix 1

Objectives and final competences of the FEW bachelor’s degree programmes

Knowledge:
Graduates
1. will have the latest knowledge (newest insights, methods, techniques and theories) at the level of a standard manual of the most important disciplines of the economics knowledge area of the degree programme in question as well as basic knowledge of the related disciplines.
2. will have insight into the relationships between the subject modules within the economics knowledge area.
3. will be able to apply the analysis techniques and skills acquired to the economics knowledge area.
4. will be able to critically assess the application of theories and research methods within the economics knowledge area.

Skills:
Graduates
1. will be able to conduct supervised routine research within the knowledge area.
2. will be able to collect quantitative and qualitative information and independently analyse and interpret it, including as part of a (multidisciplinary) team.
3. will have the relevant skills in the field of information and communication technology.
4. will have the communicative skills to clearly and logically express the argumentations and concepts of the main disciplines both orally and in written form.

Attitude:
Graduates
1. will have an investigative attitude towards the content and development of the knowledge area.
2. are interested in (business) economics phenomena and questions, including in their social context.
3. are able to reflect on their own learning process (thinking and working), want to acquire new knowledge and form their own opinions.
4. have the right attitude towards continuing their studies.
Appendix 2

Objectives and final competences of the FEW master's degree programmes

Knowledge:
Graduates
1. have an advanced level of knowledge of the theories, methods and techniques of their chosen discipline/specialization, as well as the ability to interpret the interrelationship of these economics knowledge areas.
2. will be able to formulate a critical assessment of the relationships between theoretical concepts, research methodologies and empirical findings in international scientific publications.
3. are able independently to employ specific research and analysis methods within the economics discipline/specialization.
4. are able to contribute independently to the body of knowledge of at least one economics discipline/specialization.

Skills:
Graduates
1. are able to apply the knowledge gained to complex questions, can independently formulate a problem definition and conduct research in a multidisciplinary context.
2. are able to apply the most important theoretical insights in the field to the analysis of concrete (business) economics questions and thus take the first steps towards innovative research.
3. can draw links between the results concerning the knowledge area found in international scientific and subject-specific publications and relevant social developments.
4. are able to critically reflect on argumentations and standpoints, can integrate broader social modes of thought into the field and communicate this in both written and oral forms.

Attitude:
Graduates
1. have an investigative and critical attitude towards the content and development of the knowledge area and are able to take a standpoint.
2. have insight into and a vision of the applicability and limitations of the science of economics and of science in general for social questions and developments.
3. have the right attitude towards continuous learning.
4. have an open and critical attitude towards new ideas and developments within the knowledge area.
5. demonstrate a professional attitude whereby the relevant skills (such as working methodically, accurately, independently, taking the initiative, negotiating) can adequately be applied.
Appendix 3

Regulations for FEW Group Trips Abroad

1. These regulations apply to all foreign study trips lasting several days by groups of students, most of whom are undergraduates at the Faculty of Economics, organized by or on behalf of the Faculty.

2. During a trip abroad, several organizations of different natures will be visited, and contacts initiated with several bodies.

3. The foreign trips are intended for third-year students and, on a pro rata basis, students of the master’s degree courses in which students from the Faculty of Economics participate. The minimum number of participants for any trip is 15. The maximum number will be determined by the organisation, as well as the procedure in the event of over subscription; the maximum grant per economics student per trip will be €200.

4. The initiative to organize a trip abroad can be taken either by lecturers or by students. By students are meant not only individuals but also the EFV, its sub societies, SIS and GFE. The Foreign Travel Committee (BRC) for funding will assess all proposals. This committee will submit its recommendations to the Faculty Board, which will make the final decision. The BRC will base its advice on the following criteria:
   a. the quality of the programme
   b. the accessibility of the programme for students from the various study programmes
   c. the degree of preparation
   d. the amount of organisational time and effort the applicants are prepared to invest
   e. a declaration from at least one lecturer that he/she will personally accompany the trip
   f. in principle, the timing of the trip may not interfere with study programmes; if that is the case, the participants bear full responsibility.

5. Grant
   Every year, the faculty determines a budget for trips abroad; in its advice, the BRC decides how many trips will be subsidized and what amount will be allocated to each trip.

6. The travel and accommodation expenses of the accompanying lecturers must be included in the cost estimate submitted with the proposal for the trip. The other travel and accommodation expenses will be financed from the general ‘internship and excursions’ budget to a maximum of 40% of the foreign travel daily allowance. The surplus from any trip (maximum subsidy minus real costs) will be added to a
fund for the financial support of additional trips abroad. Incidentally, such trips will also have to satisfy the criteria listed in article 4.

7 Procedure
a. The initiators must submit a grant application to the BRC as soon as possible, and certainly no later than 1 January of the year in which the trip is planned, consisting of a preliminary programme and a budget. It must be accompanied by a signed pledge by one or more members of staff, stating that they are willing to supervise the trip.
b. The BRC will inform the Faculty Board of its recommendations as soon as possible.
c. Only in exceptional circumstances and for clearly motivated reasons will the Faculty Board ignore the advice of the BRC. It will normally ratify the BRC’s proposal regarding the allocation of grants. It will inform the organizers of the trip of its decision by letter.
d. The organizers must submit the final programme and budget to the BRC for approval no later than four weeks before the start of the trip.
e. The organisation committee will present an evaluation of the trip to the BRC within two months of its return.
f. The organizers will also submit a financial report to the Faculty Finance Office within two months.
g. After the financial report has been approved, the organizers must submit a full report on the trip (including a financial report) to the Faculty Board with a copy to the BRC.
Appendix 4

Plagiarism

Academic studies
The aim of the courses we offer is to teach you to work at an academic level. This means that you will acquire knowledge of theories and institutions, as well as analytical and practical skills. You will acquire academic skills through various forms of teaching. You will study literature independently, attend lectures and seminars, work on assignments, and carry out research individually or as part of a group. Above all, you will learn how to adopt an academic approach. This is a collective term that covers aspects such as independent thinking, an open and enquiring mind, the ability and inclination to reflect critically on your own someone else’s ideas, and a well-developed sense of academic and social responsibility. An academic approach therefore relates to the ability to think independently and form your own opinions, and to endorse them openly. These are the essential qualities and abilities of an academic. They do not develop automatically. You will have to work hard to achieve academic standards and develop an academic approach. During the course of your studies, your academic skills will progress visibly.

Plagiarism
In recent years there have been several cases of plagiarism by students. Plagiarism means using the ideas and phrases of others without acknowledging the source. This occurs not only in course assignments, but also in final-year projects. The following are examples of plagiarism: reproducing an assignment completed by a fellow student or senior student, ‘cutting and pasting’ from the Internet without stating the source, submitting the same piece of work more than once, reproducing a thesis written by a student at another university and reproducing part of a book or article. In the light of the cases that have arisen, the Faculty has decided to implement stricter regulations on plagiarism. Plagiarism is forbidden. One of the requirements of academic training is that you should never reproduce the work of others without acknowledging the source. Of course, you use these sources while you are working on your assignment or article, but the final piece of work you produce must be based on your own creative thinking; you must bring something to your reading. The Faculty has clearly set out above what academic study involves and how academics are expected to conduct themselves. Plagiarism undermines the basic aim of an academic education, namely to develop an independent and critical mind. To combat the problem, we will be testing a plagiarism scanner in the near future. This means that all assignments submitted by students will be screened for plagiarism. Part of this screening will be done electronically. If a member of staff suspects that a student is guilty of plagiarism, the Board of Examiners will be notified. The Board of Examiners will then investigate the matter further, if necessary. If plagiarism is deemed proven, disciplinary measures will follow. The regulations regarding plagiarism can be found in the Rules and Regulations available on CD-rom.
Appendix 5

Computer Centre: House Rules

When using RuG computer/network facilities, students of the faculties of Economics, Management and Organization and Spatial Sciences must observe the following rules:

With regard to the facilities:
1. The user shall use the facilities made available to him/her exclusively for the purpose for which they are intended, i.e. education and research. This also applies to Internet and e-mail facilities.
2. The user shall observe the university regulations drawn up by the Executive Board (see: www.rug.nl/rc/helpdesk/security/documenten/aupnl).
   Supplementary rules and regulations may be drawn up by or on behalf of the Faculty Board for practicals with a specific arrangement of computers.

With regard to user accounts:
1. The account and related password are strictly personal and must not be passed on in any form to a third party.
2. The account is valid for a specific period, i.e. the period during which the user is registered as a student.
3. Unauthorised use of the account is not permitted. This includes, but is not restricted to:
   • The dissemination and/or use of illegal software and viruses, of information that may infringe the intellectual property rights of third parties, and of images or text that are considered offensive to public morality.
   • Unauthorised access to computer systems or parts thereof, the disruption of computer systems, and any other activity intended to impair their functioning.
   • Engaging in commercial activities.
   • Sending junk mail (‘spam’). This includes sending messages to a large number of persons or organisations when there are reasonable grounds for assuming that the recipients do not wish to receive such messages. This is in the opinion of the ICT management.
4. In cases of suspected improper use, the user must allow the ICT management to investigate his/her account in accordance with the relevant rules and regulations, in order to ascertain whether the account has been used improperly.

With regard to conduct in computer rooms:
1. Users are not permitted to eat, drink or smoke in the computer rooms, or to otherwise cause nuisance. Equipment and facilities must be used responsibly.
2. The user must comply with these rules and immediately follow any instructions given by the ICT management.
Penalties
1. A user who misuses the ICT facilities in any way or does not observe the above rules may be banned from using the ICT facilities by the management for a period of up to 30 days. Further measures may be taken in accordance with the university regulations (*Huisregels en Ordemaatregelen*).
2. Students who have been banned from using ICT facilities by the management can lodge an appeal with the Board of the faculty at which they are registered.

Directory listings
Users should be aware that their e-mail address, name and course are included in a publicly accessible RuG e-mail directory.
Appendix 6

Tips for preventing RSI

RSI: how can you prevent it?
RSI (repetitive strain injury) is the collective name for a series of disorders affecting the neck, shoulder, upper/lower arm, elbow, wrist or hand, either separately or in combination. The symptoms include pain, pins & needles, muscle sensitivity and loss of strength. RSI can affect many activities to a greater or lesser extent. RSI is always caused by a combination of factors: a bad working posture, incorrect use of equipment, working too long without a break, stress, and a badly organized desk. Computer users are particularly at risk, but RSI can be caused by the prolonged repetition of any activity in the same position. RSI occurs frequently among builders, tailors, freight handlers and packers.
You probably already know that constant use of a computer mouse can also cause problems. ‘Mouse arm’ as it is popularly known, belongs to the group of disorders known as RSI that affect the musculoskeletal system. The measures you can take to prevent/relieve RSI are less well known. We have listed them for you below.

What can you do about RSI?
• When you are working, take regular breaks during which you relax, stretch or move about.
• Vary your work activities. Alternate difficult and easy tasks.
• Make sure your posture is correct. Sit up straight, ensuring that your feet are resting flat on the floor. Your lower legs should be at right angles to your thighs. Use a good-quality chair with adjustable seat-height, back and armrests. Your chair should provide good lower-back support. Armrests take the stress off your shoulders. Adjust the armrests so that, when your elbows rest on them, your upper arms are relaxed and your forearms are horizontal.
• Sit directly in front of the computer screen, but not too close to it. Make sure that you do not have to turn your head when working. The top of the computer screen should be approximately 10 cm below eye-level. Make sure there are no reflections on your screen. Use a large font that you can read without leaning forward.
• Keep your wrists stretched as you type. Do not bend your wrists when typing; keep them straight. Relax your wrists whenever you pause from typing.
• When using the mouse, remember to keep your wrist straight. Relax your hand regularly; do not let it rest continuously on the mouse. For functions, use key combinations rather than the mouse. Key combinations are explained in the Windows menu. For example: ‘Print’ is Ctrl+P and ‘Save’ is Ctrl+S.

Are you in a high-risk group? Do the RSI test at the FNV site: www.bbzfnv.nl/rsi/testen/rsitesten.html.
See also www.debeweging.presteert.nl or www.rsi-vereniging.nl (with a selection of other links).
Information:
The Health, Safety & Environment coordinator can provide information and advice on RSI.
• The FEW coordinator is Ms A. (Aafke) Wiekens (WSN 314) tel. (050) 363 7179.
• The FBK coordinator is Ms I.F. (Iefke) Duzink (WSN 618), tel. (050) 363 7364.
• You can also contact the AMD, the university’s Health, Safety & Environment department. Address: Visserstraat 47, 9712 CT Groningen. Tel. (050) 363 8010.
Appendices

Appendix 7

Fire Drill instructions

These instructions apply to the following buildings:
• WSN COMPLEX
• WSN INTERIM BUILDING
• ZERNIKE BUILDING

In September 2004, student organisations will be given an instructional tour by staff from the building maintenance department (Gebouwenbeheer). In addition, staff from that department will also give instructions on how to evacuate the two main lecture halls. This will be done at the end of lectures, in consultation with the lecturer.

Students and staff must also observe the general instructions below.

Fire drill instructions for staff and students

ADVANCE WARNING: alternating high/low signal

1. Stop what you are doing. Switch off and unplug any electrical equipment.
2. Put away important documents/items and close desks, drawers and cupboards.
3. If you are on the telephone, end the call.
4. Listen to the instructions given over the PA system.
5. Close all windows (if possible/applicable).

EVACUATION SIGNAL: a constant signal

1. Leave the room and take your personal belongings with you.
2. Close the door of the room, but do not lock it.
3. Help disabled persons to leave the building.
4. Follow the instructions given by wardens, or follow the illuminated green signs with a white arrow. Leave the building via the stairs. Do not use the lift.

ALL-CLEAR SIGNAL: a series of separate tones It is safe to enter the building again. Important: make sure you are familiar with exit routes and assembly points.
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