Welcome at
The Faculty of Bioscience Engineering
22 September 2017
Word of welcome by
Prof. Nadine Buys
Dean Faculty of Bioscience Engineering
Location

The Faculty of Bioscience Engineering is situated south west of Leuven, near the ring road, in the neighbourhood of the Arenberg Castle with its beautiful park.
Structure of the faculty

Prof. Nadine Buys
Dean Faculty of Bioscience Engineering
deccaan.biw@kuleuven.be
+32 16 32 14 38

Linda Huysmans
Administrative Director
linda.huysmans@kuleuven.be
+32 16 32 71 23

Matt Tips
Policy Advisor
matt.tips@kuleuven.be
+32 16 32 85 87
Educational programmes in Bioscience Engineering

- BSc programme in Dutch (3 years)
- MSc programme (2 years)
  - Dutch programme (7 disciplines)
  - English programme (6 disciplines)
- Doctoral & pre-doctoral study programme
- Exchange study programmes
Scientific and innovative research as basis for the MSc study programmes

- *Department of Microbial and Molecular Systems*
- *Department of Earth and Environmental Sciences*
- *Department of Biosystems*
Faculty of Bioscience Engineering
http://www.biw.kuleuven.be/english/
English language programmes

• Exchange Programmes
• MSc in Bioscience Engineering: Agro- and Ecosystems Engineering
• MSc in Bioscience Engineering: Human Health Engineering
• MSc in Bioinformatics
• MSc in Food Technology
• MSc in Molecular Biology
• MSc in Water Resources Engineering
• Doctoral Study Programme
1. Exchange Programmes
(e.g. ERASMUS, SwB,...)

(ex)change your life!
1. Exchange Programmes: responsibles

Kristel Rock
Room 20/00.01
Administrative Responsible for Exchange Students
kristel.rock@kuleuven.be
+32 16 32 10 10
2. MSc study programmes KU Leuven - academic responsibilities

- MSc in Bioscience Engineering: Agro- and Ecosystems Engineering
  - Prof. Miet Maertens
  - miet.maertens@kuleuven.be

- MSc in Bioinformatics
  - Prof. Vera van Noort
  - vera.vannoort@kuleuven.be

- MSc in Bioscience Engineering: Human Health Engineering
  - Prof. Jean-Marie Aerts
  - jean-marie.aerts@kuleuven.be
2. MSc study programmes KU Leuven - faculty support

Hanneke Deleu
Room 20/00.109
studietraject.biw@kuleuven.be
+32 16 37 77 12

Kathy De Wit
Room 20/00.04
faculteit.biw@kuleuven.be
+32 16 32 17 43
3. Interuniversity MSc study programmes
3. Interuniversity MSc study programmes - programme directors

• MSc in Molecular Biology – VUB/KU Leuven/UAntwerpen
  o  Prof. Bruno Cammue – bruno.cammue@biw.vib-kuleuven.be

• MSc in Water Resources Engineering – KU Leuven/VUB
  o  Prof. Jan Diels – jan.diels@kuleuven.be
  o  Prof. Willy Bauwens – wbauwens@vub.ac.be

• MSc in Food Technology – UGent/KU Leuven
  o  Prof. Marc Hendrickx - marceg.hendrickx@kuleuven.be
  o  Prof. Koen Dewettinck – koen.dewettinck@UGent.be
3. Interuniversity MSc study programmes - faculty support

- MSc in Water Resources Engineering

Hanneke Deleu
Room 20/00.109
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+32 16 37 77 12

Kathy De Wit
Room 20/00.04
iupware@kuleuven.be
+32 16 32 17 43
3. Interuniversity MSc study programmes - faculty support

- MSc in Molecular Biology

Yannick Schoensetters
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Kathy De Wit
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+32 16 32 17 43
3. Interuniversity MSc study programmes - faculty support

- MSc in Food Technology

Chantal Smout
Room 23/01.64
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+32 16 37 68 16

Liesbet Degent
Room 20/00.04
iupfood.postharvest@kuleuven.be
+32 16 32 60 70
4. Doctoral Students

Annemie Schellens

Room 20/00.05
Administrative Coordinator for PhD & pre-doctoral students
Annemie.Schellens@kuleuven.be
+32 16 32 16 21
Academic year 2017-2018

SEMESTER I

• 25/09/2017 – 22/12/2017: 13 weeks of lectures
• 23/12/2017 - 07/01/2018: Christmas and NY “holidays”
• 08/01/2018 - 14/01/2018: Exam preparation
• 15/01/2018 - 02/02/2018: Examination period
• 03/02/2018 - 11/02/2018: Between Semester break
Academic year 2017-2018

SEMESTER II

• 12/02/2018 - 25/05/2018: 13 weeks of lectures
• 31/03/2018 - 15/04/2018: Easter break
• 26/05/2018 - 10/06/2018: Exam preparation
• 11/06/2018 - 30/06/2018: Second examination period
• 01/07/2018: Holidays
• 20/08/2018 - 07/09/2018: Third examination period
Next presentations

Student organization LBK

Student organization IAAS

Academic year 2017-2018: practicals

- Group splits in 2
  - Exchange students follow Matt and Kristel
  - Degree seeking students stay in the room
Academic year 2017-2018: practicals

- KU Loket
- ISP (Individual Study Programme)
- IES (Individual Exam Schedule)
- Timetables
- Toledo
KU Loket - information

- Personal information
- ISP + IES
- Schedule
- Study results
KU Loket

Through KU Loket
- Personal information
- ISP + IES
- Schedule
- Study results
Academic year 2017-2018: practicals

- KU Loket
- **Course information + ISP (Individual Study Programme)**
- IES (Individual Exam Schedule)
- Timetables
- Toledo
Faculty of Bioscience Engineering

Contact and additional information about this faculty

Preparatory Programme
- Preparatory Programme: Master of Bioscience Engineering: Human Health Engineering (Leuven)
- Preparatory Programme: Master of Agro- and Ecosystems Engineering (Leuven)

Master’s
- Master of Bioscience Engineering: Human Health Engineering (Leuven)
- Master of Bioinformatics (Leuven)
- Master of Bioscience Engineering: Agro- and Ecosystems Engineering (Leuven)
- Master of Food Technology (Leuven et al)
- Master of Molecular Biology (Leuven et al)
- Master of Water Resources Engineering (Leuven et al)
- Master of Nanoscience, Nanotechnology and Nanotechnology (Leuven)
- Erasmus Mundus Master of Science in Nanoscience and Nanotechnology (Leuven et al)
- Master of Statistics (Leuven)
**Scientific Basis for Water Resources Engineering**

<table>
<thead>
<tr>
<th>Course</th>
<th>ECTS</th>
<th>Term</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater Hydrology</td>
<td>5</td>
<td>1</td>
<td>IOD18B</td>
</tr>
<tr>
<td>Surface Water Hydrology</td>
<td>5</td>
<td>1</td>
<td>IOD32B</td>
</tr>
<tr>
<td>Aquatic Ecology</td>
<td>5</td>
<td>1</td>
<td>IOD15B</td>
</tr>
<tr>
<td>Advanced Mathematics for Water Engineering</td>
<td>5</td>
<td>1</td>
<td>IODA99B</td>
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<tr>
<td>Irrigation Agronomy</td>
<td>5</td>
<td>1</td>
<td>IOD14C</td>
</tr>
<tr>
<td>Statistics for Water Engineering</td>
<td>5</td>
<td>1</td>
<td>IOD13B</td>
</tr>
<tr>
<td>Hydraulics</td>
<td>5</td>
<td>1</td>
<td>IOD17B</td>
</tr>
<tr>
<td>Waste Water Treatment and Resource Recovery</td>
<td>4</td>
<td>1</td>
<td>IOV89A</td>
</tr>
<tr>
<td>Water Quality</td>
<td>4</td>
<td>1</td>
<td>IOV93A</td>
</tr>
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</table>
Course Information: Study Guide

Master of Water Resources Engineering (Leuven et al) (120 ECTS)
Master of Science

<table>
<thead>
<tr>
<th>Admission requirements</th>
<th>Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

- **Schedule**
  - Stage1
  - Stage2

### Scientific Basis for Water Resources Engineering

All courses are compulsory.

<table>
<thead>
<tr>
<th>Course</th>
<th>ECTS</th>
<th>Credits</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundwater Hydrology</td>
<td>5</td>
<td></td>
<td>I0D19B</td>
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<tr>
<td>Surface Water Hydrology</td>
<td>5</td>
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<td>I0D32B</td>
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<tr>
<td>Aquatic Ecology</td>
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<td></td>
<td>I0D15B</td>
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<tr>
<td>Advanced Mathematics for Water Engineering</td>
<td>5</td>
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<td>I0A99B</td>
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<td>Irrigation Agronomy</td>
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<td>Statistics for Water Engineering</td>
<td>5</td>
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<td>Hydraulics</td>
<td>5</td>
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<td>I0D17B</td>
</tr>
<tr>
<td>Waste Water Treatment and Resource Recovery</td>
<td>4</td>
<td></td>
<td>I0V99A</td>
</tr>
<tr>
<td>Water Quality</td>
<td>4</td>
<td></td>
<td>I0V93A</td>
</tr>
</tbody>
</table>
More information about each course is available when clicking on the course title.
Course Information

Aquatic Ecology (B-KUL-I0D15B)

5 ECTS 🇬🇧 English 🇧🇪 First term

Prof. Brendonck Luc (coordinator) | Prof. Brendonck Luc | Prof. De Meester Luc
POC Water Resources Engineering

Aims

Upon successful completion of this course unit, the students:

- have acquired an overview on concepts in ecology as applied on aquatic ecosystems.
- have a first insight in the structure and functioning of freshwater systems such as lakes, rivers and estuaries, and the biota inhabiting these systems.
- can use this information to assess the consequences of major threats to aquatic systems, such as eutrophication, pollution, water abstraction, the introduction of exotic species and climate change.
- can also use this information to assess the consequences of engineering activities, and have a feeling for the importance of biodiversity and the special status of ancient lake ecosystems.
- have the capacity to appreciate the role of aquatic ecosystems and their threats in developing countries as well as in highly industrialized context.
- can apply the acquired knowledge in ecology in general and in aquatic systems in particular to water quality assessment, water quality management and rehabilitation of natural aquatic environments, interpreting reports on environmental degradation, etc.
- can relate quality of aquatic habitats to human development.

Activities
Course Information: Exchange students

Exchange Students Course List 2016/2017

List of courses taught in English at the faculty of Bioscience Engineering and open for exchange students.

<table>
<thead>
<tr>
<th>CODE</th>
<th>COURSE</th>
<th>CREDITS</th>
<th>SEMESTER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>I0P05C</td>
<td>Biofluidics</td>
<td>3 ECTS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>I0V02A</td>
<td>Integration of Biological Responses in Process Management</td>
<td>6 ECTS</td>
<td>1</td>
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</tr>
<tr>
<td>I0V05A</td>
<td>Identification and Control of Biotechnical Processes</td>
<td>6 ECTS</td>
<td>1</td>
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</tr>
<tr>
<td>I0V08A</td>
<td>Optics, Lasers and Acoustics</td>
<td>5 ECTS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A05E3A</td>
<td>European Perspectives on Religion and Meaning</td>
<td>3 ECTS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>I0T96A</td>
<td>Human Health Data Processing</td>
<td>6 ECTS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>I0T97A</td>
<td>Functional Anatomy of the Human Locomotor System</td>
<td>3 ECTS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>H03H7A</td>
<td>Biomedical Measurements and Stimulation</td>
<td>6 ECTS</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

http://www.biw.kuleuven.be/english/futurestudents/possibilities#courses
Course Information: Exchange students

Postharvest Pest Management and Disease Control (B-KUL-I0R07A)

ECTS: 26

Bylemans Dany
POC Food Technology

Aims

In general, the course aims to reach the following learning outcomes:

The graduate

- Has profound and detailed scientific knowledge and understanding of the (bio)chemical processes in biological raw materials during postharvest storage and their transformation into food products.
- Has profound and detailed scientific knowledge and understanding of ecology, physiology, detection, use and combat microorganisms in food systems.
- Has profound and detailed scientific knowledge in different fields of product technology such as vegetable products, dairy products, meat products, fish products, cereal derived products and fermented products including aspects of product development in relation to consumer behavior.
- Can critically evaluate the functionality and safety of foods in the context of human health including the relation with raw materials and their processing into foods based on analytical data and scientific literature data.
- Masters the skills and has acquired the problem solving capacity to analyze problems of food quality and safety along the food chain and to elaborate interdisciplinary and integrated qualitative and quantitative approaches and solutions (including implementation) appreciating the complexity of food systems and the processes used while taking into account technical limitations and socio-economic aspects such as feasibility, risks, and sustainability.
- Has acquired a broad perspective to problems of food security, related to postharvest and food processing, in low income developing countries.

More specific, this course aims to familiarize the students with fundamentals aspects on the biology of important groups of pests and diseases on harvested crops or constructions. Crop losses are discussed in terms of economical importance either for local consumption, or for export purposes in relation to international plant quarantine regulations. The course includes aspects of applied entomology (insects, mites), animal pests (rodents) and pathogens (fungi and bacteria). Some groups of organisms are discussed exhaustively to demonstrate cultural, biotechnological and phytopharmaceutical techniques to achieve the necessary control. Special attention is given to preventive rather than to curative control methods. Therefore, basics of modern diagnosis methods, threshold limits, ecological conditions and population dynamics are included as well as notions on reasonable pesticide use, safe for the applicator, consumer and to the environment.

Activities

4 ects. Postharvest Pest Management and Disease Control (B-KUL-I0R07a)

Evaluation

Evaluation: Postharvest Pest Management and Disease Control (B-KUL-I2R07a)
Course Information: Exchange students
ISP

- Full year: +/- 60 credits
- Exchange Programmes: minimum 20 credits / semester
- In case of elective courses, select from list
- Closing of ISP: 11 October 2017
### Master of Water Resources Engineering

All courses are compulsory.

#### Scientific Basis for Hydrology and Modelling

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>IA09A</td>
<td>Advanced Mathematics for Water Engineering</td>
<td>6 pt.</td>
</tr>
<tr>
<td>ID16</td>
<td>Groundwater Hydrology</td>
<td>6 pt.</td>
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<tr>
<td>ID17A</td>
<td>Hydraulics</td>
<td>6 pt.</td>
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<tr>
<td>ID32A</td>
<td>Surface Water Hydrology</td>
<td>6 pt.</td>
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</table>

#### Environmental, Ecological and Agronomical Aspects of Hydrology

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ID14A</td>
<td>Irrigation Agronomy</td>
<td>6 pt.</td>
</tr>
<tr>
<td>ID15A</td>
<td>Aquatic Ecology</td>
<td>6 pt.</td>
</tr>
<tr>
<td>ID19A</td>
<td>Water Quality Assessment, Monitoring and Treatment</td>
<td>6 pt.</td>
</tr>
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</table>

#### ICT and Data Collection for Water Resources

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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#### Common Advanced Courses in Water Resources Engineering

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ID22A</td>
<td>Social, Political, Institutional, Economic and Environmental Aspects of Water Resources</td>
<td>5 pt.</td>
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</table>

#### Detailed and Specialized Knowledge in Water Resources Engineering and Modelling

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
</table>

*Exchange students: electives*
ISP - completed

<table>
<thead>
<tr>
<th>Student:</th>
<th>[Centered]</th>
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<tbody>
<tr>
<td>Opleiding:</td>
<td>Master of Water Resources Engineering (interuniversity cooperation)</td>
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<tr>
<td>Academiejaar:</td>
<td>2008-2009</td>
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<td>Programmajaar:</td>
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<table>
<thead>
<tr>
<th>Status</th>
<th>Laatst gewijzigd door</th>
<th>Laatst gewijzigd op</th>
<th>Studiepunten</th>
<th>Type</th>
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<tbody>
<tr>
<td>ICT and Data Collection for Water Resources (12)</td>
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<tr>
<td>ID18A Hydrological Data Processing and GIS</td>
<td>Geboekt (D)</td>
<td>U0000576</td>
<td>21.09.2008</td>
<td>6</td>
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</table>

| Environmental, Ecological and Agronomical Aspects of Hydrology (18) | | | | |
| ID14A Irrigation Agronomy | Geboekt (D) | U0000576 | 21.09.2008 | 6 |
| ID15A Aquatic Ecology | Geboekt (D) | U0000576 | 21.09.2008 | 6 |
| ID19A Water Quality Assessment, Monitoring and Management | Geboekt (D) | U0000576 | 21.09.2008 | 6 |

| Scientific Basis for Hydrology and Modelling (30) | | | | |
| ID99A Advanced Mathematics for Water Engineers | Geboekt (D) | U0000576 | 21.09.2008 | 6 |
| ID17A Hydraulics | Geboekt (D) | U0000576 | 21.09.2008 | 6 |
| ID32A Surface Water Hydrology | Geboekt (D) | U0000576 | 21.09.2008 | 6 |

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<table>
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<tr>
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<tbody>
<tr>
<td>opleidingsonderdelen 1e sem (D)</td>
<td>30</td>
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<tr>
<td>opleidingsonderdelen 2e sem (D)</td>
<td>30</td>
</tr>
</tbody>
</table>
```
Academic year 2017-2018: practicals

- KU Loket
- Course information + ISP (Individual Study Programme)
- IES (Individual Exam Schedule)
- Timetables
- Toledo
At the moment you complete your ISP, you will be automatically assigned to an exam date for the specific course (in case only one date is available)

Or you will be able to choose a time slot for an exam for the specific course (in case more dates are available)

Please do not forget to save the dates you have selected

Advantage: Students can know their schedule at the start of the academic year

In case of problems related to exams: OMBUDS

http://www.biw.kuleuven.be/studeren/hstudent/ombudslui
IER – rules and regulations


Be aware of regulations of fraud, plagiarism,…!
Academic year 2017-2018: practicals

- KU Loket
- Course information + ISP (Individual Study Programme)
- IES (Individual Exam Schedule)
- Timetables
- Toledo
Timetables

- Through Study Guide
  http://onderwijsaanbod.kuleuven.be/opleidingen/e/F_50000547.htm
- Through KU Loket
- Through Toledo
- Content:
  - Course description
  - Lecturer
  - Time of lectures & rooms
# Timetables

Schedule from 25.09.2017 to 01.10.2017 (week 39)

<table>
<thead>
<tr>
<th>Monday 25.09.2017</th>
<th>16h</th>
<th>17h</th>
<th>18h</th>
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<tbody>
<tr>
<td>Tuesday 20.09.2017</td>
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</tr>
<tr>
<td>Wednesday 27.09.2017</td>
<td>Practical Computing for Bioinformatics</td>
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<tr>
<td>Thursday 28.09.2017</td>
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</tr>
<tr>
<td>Friday 29.09.2017</td>
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<td></td>
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</tr>
<tr>
<td>Saturday 30.09.2017</td>
<td></td>
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<tr>
<td>Sunday 01.10.2017</td>
<td></td>
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</tr>
</tbody>
</table>
Academic year 2017-2018: practicals

- KU Loket
- Course information + ISP (Individual Study Programme)
- IES (Individual Exam Schedule)
- Timetables
- Toledo
Toledo

- E-learning environment
- Not to be confused with KU Loket
- Which information:
  - Courses
    - Course documents
    - Announcements from professors
    - ...
  - Communities
    - General information
    - ...
Toledo2know blog

(Dutch)

- Wel is er efficiënt ingeschreven in een vak of community?
- Group, Peer and Self Assessment (OPAP) vernieuwd

Courses (14u - 17u)

- 0802013 - Basisopleiding
- 1302013 - Basisopleiding
- 1402013 - Het boek is aanvullend materiaal in Toledo

Lunchboxes (12u - 14u)

MY COURSES (2012-2013)

Available courses

- BI009a Mathematical Planning and Advanced Statistics: Practic...
- BRF39a HACCP-concepts and Quality Assurance Workshop
- BR02a Low Temperature Processing of Foods
- BR35a Fruit and Vegetable Technology
- BR37a Thesis Research Food Technology

Unavailable

- BR40a Food Packaging and Transportation
- BR94a Thermal Processing of Foods
- BR00a Mathematical Planning and Advanced Statistics
- BR33a Workshop Food Technology

MY COMMUNITIES (2012-2013)

Available communities

- Facultaire medewerkers onderwijsadministratie
- Masters Faculty Bioscience Engineering 2012-2013

MY COURSES - ARCHIEF

Unavailable

- BI009a Mathematical Planning and Advanced Statistics: Practic...
- BI042a Engineering Properties of Biological Materials: Practic...
- BFR40a Food Packaging and Transportation (1112)
- BRF39a HACCP-concepts and Quality Assurance Workshop (1112)
Remarks

All information for students coming from the student secretariat will be sent to the student email address:

FirstName.LastName@student.kuleuven.be

Only use your KU Leuven e-mail address for communication with professors and administrative staff.
Thanks for your attention!!
Questions ?

Success with your studies!
Succes with your disciplinary future self!
Have a good experience in Leuven!