



## COURSE CATALOGUE 2018-2019





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## General Information

### Curriculum Requirements

	Courses (5 credits each)	Skills trainings (2,5 credits each)	Projects (5 credits each)	total (credits)
<b>Core</b>	4 compulsory courses	4 introductory	2 introductory	<b>40</b>
<b>General education</b>	2 courses outside chosen concentration			<b>10</b>
<b>Concentration</b>	16 courses; max 4 introductory min 4 advanced	6 skills trainings; intermediate or advanced	3 projects; max 2 intermediate min 1 advanced	<b>110</b>
<b>Capstone</b>			1 Capstone	<b>20</b>
<b>Total credits</b>	22 courses <b>110</b>	10 skills trainings <b>25</b>	5 projects + Capstone <b>45</b>	<b>180</b>

### Disclaimer

The course and skills descriptions provided herein are for the guidance of prospective students of University College Venlo and every effort is made to ensure their accuracy. However, University College Venlo reserves the right to make variations to the content and pre- and co-requisites, to discontinue courses and to merge or combine courses without prior notice.

As University College Venlo is a newly started bachelor programme this course catalogue is under continuous development, new courses are added regularly.



## Courses per Period

Course Code	Module	Level	Course Title	Period
VCO1001	Course	1000	Modelling Nature	1
VSC1101	Course	1000	Introduction to Biology	1
VSC1201	Course	1000	Introduction to Public Health	1
VSC2205	Course	2000	Nutrition and Metabolism	1
VSC2301	Course	2000	Operations Management	1
VSC3101	Course	3000	Gut Microbiology	1
VSC3203	Course	3000	Food Innovation	1
VSC3206	Course	3000	Nutritional Pharmacotherapy	1
VSS1101	Course	1000	Introduction to Psychology	1
VSS1201	Course	1000	Introduction to Business Administration	1
VSS2103	Course	2000	Cognitive Psychology	1
VSS2105	Course	2000	Social Psychology	1
VSS2204	Course	2000	International Macroeconomics	1
VSS3501	Course	3000	European Food Law	1
VSK1001	Skills Training	1000	Introduction to Academic Skills	1
VSK2001	Skills Training	2000	Argumentation	1
VSK2002	Skills Training	2000	Lab Skills 2	1
VSK2004	Skills Training	2000	Academic Writing	1
VSK2006	Skills Training	2000	Clinical Lab Skills	1
VCO1004	Course	1000	Globalisation: World Politics and Economics	2
VSC1301	Course	1000	Statistics 1	2
VSC1401	Course	1000	Introduction to Chemistry	2
VSC2103	Course	2000	Pharmacology and Toxicology	2
VSC2104	Course	2000	Molecular Biology	2
VSC2204	Course	2000	Public Health Policy Making	2
VSC2207	Course	2000	Plant Biology and Agriculture	2
VSC3204	Course	3000	Food Safety	2
VSC3207	Course	3000	Sports Nutrition and Physiology	2
VSS2101	Course	2000	Psychology of Eating	2
VSS2201	Course	2000	Advertising: Marketing Communication of Brands	2
VSS2202	Course	2000	Intermediate Microeconomics	2
VSS2502	Course	2000	International Trade Law	2
VSS3301	Course	3000	Social and Environmental Entrepreneurship	2
VSK1002	Skills Training	1000	Research Methods I	2
VSK2000	Skills Training	2000	Language Training: German professional proficiency at B2	2
VSK2003	Skills Training	2000	Lab Skills 3	2
VSK2005	Skills Training	2000	Presentation Skills	2
VSK3003	Skills Training	3000	Advanced Epidemiology of Food	2
VPR1003	Skills Training	1000	Research Methods II: Applied Academics	3
VPR1004	Skills Training	1000	Research Methods II: Lab Skills	3
VPR2001	Project	2000	Writing a Research Article	3
VPR2002	Project	2000	Academic Debate	3
VPR3002	Project	3000	Think Tank	3

VCO1003	Course	1000	World Orientation: An Introduction to Cultural Studies	4
VSC1302	Course	1000	Introduction to Programming	NA in 2019
VSC1501	Course	1000	Sustainable Development	4
VSC2102	Course	2000	Homeostatic Principles	4
VSC2106	Course	2000	Brain and Action	4
VSC2201	Course	2000	Epidemiology of Food; The Relationship Between Food and Health	4
VSC2302	Course	2000	Calculus	NA in 2019
VSC2401	Course	2000	Biochemistry	4
VSC3201	Course	3000	Clinical Nutrition	4
VSC3501	Course	3000	Sustainable Food Production	4 (New!)
VSC3202	Course	3000	Health Education and Communication	4
VSS1202	Course	1000	Principles of Economics	4
VSS1502	Course	1000	Law and Legal Reasoning	4
VSS2203	Course	2000	Finance and Investments	4
VSS2701	Course	2000	Culture Politics and Society	4
VSS3102	Course	3000	Taste	4
VSS3202	Course	3000	Consumer Behaviour	4
VSK1000	Skills Training	1000	The Applied Researcher I	4
VSK2007	Skills Training	2000	Risk Communication & Crisis Management	4 (New!)
VSK3001	Skills Training	3000	Preparing Conference I	4
VSK3101	Skills Training	3000	PEERS - Undergraduate Research I	4
VCO1002	Course	1000	Philosophy of Science	5
VSC2105	Course	2000	Microbiology	5
VSC2202	Course	2000	Food and Disease	5
VSC2203	Course	3000	Food Technology and Processing	5 (New!)
VSC2303	Course	2000	Statistics 2	5
VSC3102	Course	3000	Healthy Life Cycle	5
VSC3205	Course	3000	Public Health Implementation and Evaluation	5
VSS1701	Course	1000	Macro Sociology: An Introduction to Human Societies	5
VSS2102	Course	2000	Behaviour Change	5
VSS2106	Course	2000	Economic Psychology	5
VSS2205	Course	2000	Game Theory	5
VSS2301	Course	2000	Entrepreneurship	5
VSS3101	Course	3000	Performance Psychology in Sports and Business	5
VSS3201	Course	3000	Production Planning and Management	5
VSK1004	Skills Training	1000	The Applied Researcher II	5
VSK2008	Skills Training	2000	Visualization and Data Storytelling	5 (New!)
VSK3002	Skills Training	3000	Preparing Conference II	5
VSK3102	Skills Training	3000	PEERS - Undergraduate Research	5
VPR1002	Project	1000	The Applied Researcher III	6
VPR2003	Project	2000	Science Communication Mini-Documentary	6 (New!)
VPR3001	Project	3000	Conference	6
VPR3103	Project	3000	PEERS - Undergraduate Research	6
VCA3000	Bachelor Thesis	3000	Capstone	Semester



## Core Courses

## VCO1001 Modelling Nature

### 1000 Core Course

5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Alie Boer, de, University College Venlo, FHS, Maastricht University

Contact: a.deboer@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

This course provides an introduction to theorizing and modelling. It is relevant for a wide range of other courses that are offered at UCV, but it does require some experience in academia. **It is therefore recommended that students take the course in their second or third semester.**

#### Objectives

Students...

- Will get a broad overview of scientific models and modelling techniques in different disciplines.
- Are shown how to use modelling and models in different academic fields.
- Can apply the new modelling skills by modelling a specific situation, using general models and modelling techniques

#### Description of the course

The aim of the course is to familiarise students with model systems within the different disciplines of Sciences and Social Sciences. Models allow us to approach complex questions in systematic ways, for instance, by predicting weather conditions, the patterns of bird flight formations or the results of presidential elections. Such questions are present everywhere and it is through modelling that we can try to find some answers.

Modelling helps us to break down what we are studying into variables, understand relations or correlations between them and even predict the future. The course starts with a short introduction to models, followed by several case studies that illustrate their usefulness in various contexts. Exposing students to models used both in academia and every-day thinking, the course fosters a thorough understanding of natural and social phenomena. Throughout the course, students are encouraged to link models to specific situations and examples from their daily-life.

#### Literature

Jaccard J. and Jacoby J. (2010). Theory Construction and Model-Building Skills – A Practical Guide for Social Scientists, New York: The Guilford Press.

Original research articles.

#### Instructional Format

Lectures and tutorial meetings

#### Assessment

- Written final exam (open questions).
- Written assignment (report with two peer reviews and a response to peer reviews).

## VCO1002 Philosophy of Science

### 1000 Core Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Louis Boon, FHS, Maastricht University

Contact: louis.boon@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

It is strongly recommended not to take the course in your first or second semester.

#### Objectives

To familiarize students with the philosophical foundations of scientific method.

#### Description of the course

Starting from classical positions on the objectivity and methodology of science, such as those of logical empiricism and critical rationalism, the so called historical and sociological turn in the theory of science will be analyzed. Students will learn about the work of Kuhn, whose paradigm theory of science revolutionized thinking about scientific knowledge.

Typical issues in this course are: what is the role of observation in science? What is a scientific explanation? What roles do theories and experiments play in science? What is the nature of scientific progress? Can we rationally decide between scientific viewpoints?

#### Literature

Chalmers, D. (1999). What is This Thing Called Science?

E-Readers.

#### Instructional Format

Tutorial group meetings and lectures.

#### Assessment

An essay and a test with open questions.

## VCO1003 World Orientation: An Introduction to Cultural Studies

### 1000 Core Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

- You can recall cultural concepts and models relevant to understanding how culture influences our actions and thinking in six different fields of studies (e.g. Kleinman's explanatory model; Douglas grid-group theory).
- You can explain how culture influences our actions and thinking in six different fields of studies (health, food, business, globalization, alw and risk perception).
- You can use the theoretical and empirical knowledge retrieved from academic sources to argue orally and in writing for or against (a) a perspective and (b) a current societal issue.
- You can orally discuss a current societal issue in a two person face-to-face debate using theoretical and empirical knowledge studied in the course.
- You can demonstrate that you have read and grasped part of the compulsory reading by formulating a new question for your fellow students which requires them to recall, describe and/or comprehend at least two of the compulsory sources.

#### Description of the course

This course takes an approach that surpasses boundaries between disciplines and methods, problems and perspectives. We will focus on understanding how culture and cultural differences contribute to some of the current problems and phenomena observed in six disciplines (food, health, globalization, business, human rights and risk). In each week of the course we will focus on the relation between culture and one of the six fields. Questions that will be tackled include: What is culture? How does globalization influence culture and identity? Why are some people so persistent in using non-western forms of healing/treatment within a biomedical treatment dominated country? Is food culture by definition the result of an autonomous shift in consumer views/tastes or can a change in food culture be produced? How can culture explain differences in risk perception?

#### Literature

In this course students do not use one overarching book. Instead an e-reader will be provided which contains numerous literature sources per task. Students decide for themselves which sources from the list/e-reader they will read to prepare for the post-discussion of a task.

#### Instructional Format

Tutorial group meetings and lectures.

#### Assessment

An opinion paper and debate.

A written, open question examination.

## VCO1004 Globalisation: World Politics and Economics

### 1000 Core Course

5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Louis Boon, University College Venlo, FHS, Maastricht University

Contact: louis.boon@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

- This course provides students with a basic knowledge on questions related to globalization.
- Students learn to apply knowledge on globalization/ interconnectedness of the world to different fields of study and a case.
- Students are challenged to study the sometimes contradictory impact that globalization/ an increase in interconnectedness of the world can have.

#### Description of the course

In this course students delve into questions related to globalization. For example, they gain a deeper insight into what globalization is and how global networks have developed over the course of history. In addition students are challenged to critically evaluate how the interconnectedness of the world affects aspects of health, food, economics and human rights.

#### Literature

In this course students do not use one overarching book. Instead an e-reader will be provided which contains numerous literature sources per task. Students decide for themselves which sources from the list/e-reader they will read to prepare for the post-discussion of a task.

#### Instructional Format

Tutorial group meetings and lectures.

#### Assessment

A case study report.

A written, open question examination (take-home)



## Life Sciences Courses

## VSC1101 Introduction to Biology

1000 (Life) Science Course

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Jonathan Tilburg, Department of Human Biology, FHML, Maastricht University

Contact: j.vantilburg@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

Students with highschool level biology background are advised to contact the coordinator prior to registering for this course.

### Objectives

- To gain insight in the basic human biological concepts.
- To gain insight in the structure and function of tissues and organ systems.
- To increase appreciation and knowledge of the science of life.
- To understand the basic concepts of evolution and its mechanisms.
- To provide students with sound basic knowledge required to enter more detailed courses in life sciences

### Description of the course

The Introduction into Biology course offers you a comprehensive view of man as a biological species. This course begins with an introduction to key concepts in biology, from molecular and cellular features to the concept of evolution, including genetics and physiology. The six main topics will be: chemistry and molecules of life; the living cell; genetics; evolution and diversity; structure and function of tissues and organ systems; and human nutrition and digestion.

### Literature

Simon. Campbell essential biology with physiology / Eric J. Simon, Jean L. Dickey, Jane B. Reece. - 5th edition. - Boston : Pearson, 2015. - ISBN 978-0-321-96767-1

### Instructional Format

Lectures and tutorial group meetings will be organized to deal with the different biology subjects. In addition, 1-2 plenary meetings of students and staff members will be organized, during which (groups of) students will present the results of a literature study (end of the course). A schedule of students and times of these presentations will be given at the start of the course.

### Assessment

Short online tests, a final test and a literature study plus presentation at the end of the course.

### This module may be a prerequisite/recommended for:

Homeostatic Principles, Pharmacology and Toxicology, Molecular Biology, Microbiology, Food Technology and Processing, Nutrition and Metabolism, Plant Biology and Agriculture, Clinical Nutrition



## VSC1201 Introduction to Public Health

*1000 (Life) Science; Social Science Course*

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Kathelijne Bessems, Health Education and Promotion, FHML, Maastricht University

Contact: k.bessems@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

None

### Objectives

- To provide students with knowledge and understanding of what Public Health encompasses and that Public Health can intervene on several ecological levels (individual, interpersonal, organization, community, society), what the main aims of public health are (disease prevention, health protection, health promotion) and how it has developed over the years.
- After this course, students will have gathered experience in the application of knowledge and understanding and the translation to the field of observational research. They will also have developed basic skills on how to use knowledge and observational data in order to find solutions for a public health problem and on reporting these solutions.
- Learning skills: After this course students will be able to find their way in the available literature, to follow developments in public health in a critical and efficient way, integrate the different professional perspectives and to collaborate in small teams and critically reflect on personal work as well as on the work of others.

### Description of the course

Public Health is the multidisciplinary field of research, practice and policy that aims at promoting health and preventing disease. The aim of this course is to provide a vivid view on public health and insight in: its fundamentals, its methods and the organizations involved in public health. Various aspects of public health such as healthy eating will be addressed from an ecological perspective in which we distinguish between individual, family, organizational, community/environmental and global level. You will study the role of public health on every distinct level and ask yourself if public health interventions should aim at the individual, the collective or the environment. What is the role of public health for the chronically ill? How can public health target the family? How can we protect/promote health in the occupational setting and what about health, prevention and public health in the developing countries? How can we explain socio-economic health differences and does the built environment play a role in public health problems? Further, you will work in small groups on a specific public health problem. Finally, you will conduct an interview with a professional working in the field of public health and report your findings in a report and a mini symposium.

### Literature

- Detels, R., Beaglehole, R., Lansang, M.A. & Gulliford, M. (2011) Oxford Textbook of Public Health. Oxford: Oxford University Press. (reading room)
- Specific literature that is available in an e-reader

### Instructional Format

Lectures and tutorial meetings (PBL)

Research in teams

**Assessment**

Presentation, exam with open ended questions and mini symposium

**This module may be a prerequisite/recommended for:**

Public Health Policy Making, Health Education & Communication, Public Health Evaluation

## VSC1301 Statistics 1

*1000 (Life) Science; Social Science Course*

5 ECTS, Fall Semester, Period 2

### Course Coordinator

Anke Wesselijs, Complex Genetics, FHML, Maastricht University

Contact: anke.wesselijs@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

A mathematical background of at least the VWO (or equivalent) level.

- This module is a prerequisite for follow-up modules statistics 2
- Knowledge of basic and advanced inferential statistics is a prerequisite for many Dutch Master programmes

### Objectives

- To provide students with advanced knowledge basic inferential statistics

### Description of the course

During statistics 1 you will get acquainted with the basics of inferential statistic and simple statistical techniques to analyze your data. In the first part of the course we will discuss methods of descriptive statistics. You will learn what cases and variables are and how you can compute measures of central tendency (mean, median and mode) and dispersion (standard deviation and variance). Next, we discuss how to assess relationships between variables, and we introduce the concepts correlation and regression. Furthermore, statistics 1 also provides an introduction to the SPSS program.

### Literature

- Andy Fields; Discovering Statistics Using IBM SPSS Statistics; 5th edition; Sage Publications Ltd

### Instructional Format

Lectures and tutorial meetings

### Assessment

- Oral Presentation / written assignment
- Final open book exam

## VSC1302 Introduction to Programming

### 1000 (Life) Science Course

5 ECTS , NOT OFFERED IN 2018-2019 Contact: [campusvenlo-advising@maastrichtuniversity.nl](mailto:campusvenlo-advising@maastrichtuniversity.nl) if you wish to take a similar course.

### Course Coordinator

TBA

Contact: [campusvenlo-advising@maastrichtuniversity.nl](mailto:campusvenlo-advising@maastrichtuniversity.nl)

### Pre-requisites

This course is aimed at students with little or no prior programming experience, but a desire to understand computational approaches to problem solving. Since computer programming involves computational modes of thinking, it will help to have some mathematical and logical aptitude. You should be confident with your math skills up to pre-calculus. Abstract thinking ability.

### Recommendations

Ability to operate their own system to install and set up the tools needed to program in at least one computer programming language.

### Objectives

- The course will introduce you to the fundamental principles of computing.
- This course will teach the students how to program using an object-oriented programming language.

### Description of the course

This course is an intensive introduction to programming that assumes no prior programming experience. It explores all aspects of modern programming by means of lectures and hands-on practical lab sessions. The course starts with the basics of computer science and computer programming and shows how basic data types and control statements are used traditionally. More precisely, we will deal with concepts such as variables, data structures, methods, conditional statements, loops, and recursion. These need to be understood in all their facets. The course uses an object-oriented programming language. Finally, the course aims to help students, regardless of their major, to feel justifiably confident of their ability to write small programs that allow them to accomplish useful goals.

### Literature

- Daniel Shiffman. Learning Processing: A Beginner's Guide to Programming Images, Animation, and Interaction. ISBN-13: 978-0-12-373602-4
- [www.learningprocessing.com](http://www.learningprocessing.com)
- [www.processing.org](http://www.processing.org)

### Instructional Format

Lectures and practical lab sessions. There is an attendance requirement of 83% for the total of all sessions. Moreover, some practical sessions contain an assignment. These assignments influence your exam grade .

### Assessment

Weekly programming assignments weighted towards the final grade. A closed-book, open-questions and practical exam at the end of the course. Possibly, a closed-book, open-questions, practical re-sit exam.

## VSC1401 Introduction to Chemistry

1000 (Life) Science Course

5 ECTS, Fall Semester, Period 2

### Course Coordinator

Gunnar Seide, Biobased Materials, FHS, Maastricht University

Contact: [gunnar.seide@maastrichtuniversity.nl](mailto:gunnar.seide@maastrichtuniversity.nl)

### Pre-requisites

✓ None

### Recommendations

None

### Objectives

- To have an understanding of the nature of various atoms and their organization in the periodic table of the elements.
- To have the ability to recognize various classes of chemical compounds and to understand their basic physical and chemical properties.
- To obtain an understanding of the basic physical chemistry of fundamental importance to most natural and chemical processes, with an emphasis on thermodynamics and kinetics.
- To be familiar with the essentials of acid-base behaviour and electrochemistry.
- To have sufficient background for further, more advanced, courses in chemistry, biochemistry and the life sciences.

### Description of the course

From the battery of our phones to our very thought processes, every aspect of our lives relies on chemistry. This course introduces key concepts in organic- and bio- chemistry like; the nature of atoms and their place in the periodic table; the major chemical classes and their physical properties; the most important atomic bonds; important chemical reactions and processes and the chemical and physical conditions in which these reactions occur. This course provides a great introduction for those who want to study chemistry but will also help students gain a deeper understanding of biological processes.

### Literature

"Chemistry3: Introducing inorganic, organic and physical chemistry" Burrows, Holman, Parsons, Pilling, Price. Second Edition, Oxford University Press

### Instructional Format

Lectures and tutorial group meetings

### Assessment

Participation, midterm exam, final exam

### This module may be a prerequisite/recommended for:

Biochemistry

## VSC1501 Sustainable Development

*1000 (Life) Science; Social Science Course*

5 ECTS, Spring Semester, Period 4

### Course Coordinator

Maud Huynen, International Centre for Integrated assessment & Sustainable development, FHS, Maastricht University

Contact: m.huynen@maastrichtuniversity.nl

### Pre-requisites

✓ None

### Recommendations

None

### Objectives

- To gain a basic understanding of the (various perspectives on the) concept of sustainable development and some of the main related ideas, concepts and theories.
- To gain insights into (the limits to) our immense global human impact on the earth's systems and the underlying drivers of these unsustainable trends
- To explore ideas about how to achieve a more sustainable society.

### Description of the course

Today it is acknowledged that achieving sustainable development at the local, regional and global scale is one of the greatest challenges for the 21st century. But in many cases the term 'sustainable development' functions as little more than a vacuous buzzword. So what does sustainable development actually mean? How unsustainable is our global society at the moment? Are we contributing to irreversible climate change? Are we already passing dangerous global environmental tipping points? Why are humans acting in such unsustainable ways? And, of course, what are sustainable ways forward?

This course aims to enhance student's understanding of 'sustainable development', based on the notion that human development can only be sustainable when environmental boundaries are respected. The course introduces the main concepts, ideas and theories related to the term sustainable development. Students will gain insights into (the limits to) humanity's immense impact on the earth's systems and the underlying drivers of these unsustainable trends. Furthermore, sustainable development requires an understanding that inaction has consequences. Students will explore ideas about how to achieve a more sustainable society. As part of the examination students will link theories/concepts/ideas discussed in the course to a self-selected case study (a promising way forward towards sustainability) in a poster presentation.

### Literature

Students are not required to buy a specific book

### Instructional Format

Lectures and tutorial meetings

### Assessment

Group poster presentations and written exams.

### This module may be a prerequisite/recommended for:

Sustainable Food Production

Social and Environmental Entrepreneurship

## VSC2102 Homeostatic Principles

2000 (Life) Science Course

5 ECTS, Spring Semester, Period 4

### Course Coordinator

Andries Gilde, Physiology, FHML, Maastricht University

Contact: a.gilde@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC1101 Introduction to Biology

### Recommendations

Students should have highschool level knowledge of biology or follow Introduction to Biology first.

### Objectives

- To acquaint students with the different mechanisms for homeostatic control.
- To Provide insight in:
  - Human cellular organization
  - Functional organization of the body
  - Membrane Physiology
  - Cardio-vascular function
  - Blood pressure control
  - Skeletal muscle function and control
  - Pulmonary ventilation and regulation
  - Kidney function
  - Fluid and electrolyte balance
  - Gastrointestinal fluid resorption and control
  - Neuronal control
  - Hormonal control

### Description of the course

Mathematics is seen as the father of science, Physiology is the mother. Physiology attempts to explain the physical and chemical factors that are responsible for the origin, development, and progression of life. Human physiology investigates the mechanisms of the human body making it a living being (Guyton). In the healthy human body it is of the utmost importance that the working conditions for all cells are kept "constant". In this respect it is noteworthy that essentially all organs and cells of the human body perform functions that help to maintain this constant nature or homeostasis by using feed-back mechanisms. We will begin by discussing the physiology of the cell, and the function of the cell membrane. Continuing, we will discuss cardiovascular physiology, respiratory, fluid and salt balance, followed by the autonomic nervous system and the endocrine system and ending with gastrointestinal physiology, control and feedback.

### Literature

Multiple sources provided by UM/UCV libraries including textbooks on: Physiology, Biochemistry, Physics, Pathology, Internal Medicine, etc. The use of the on-line library Access Medicine (access provided by UB).

### Instructional Format

Lectures and tutorial meetings

### Assessment

Written exam and a paper on a physiological subject of choice.

**This module may be a prerequisite/recommended for:**

Sports Nutrition and Physiology



## VSC2103 Pharmacology and Toxicology

2000 (Life) Science Course

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Alie Boer, de, University College Venlo, FHS, Maastricht University

Contact: a.deboer@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC1101 Introduction to Biology

### Recommendations

Students should have highschool level knowledge of biology or follow Introduction to Biology first.

### Objectives

Students can...

- Explain pharmacodynamic, pharmacokinetic and toxicological principles.
- Examine how pharmaceuticals and toxic substances are handled by the body.
- Individually present the appraisal of a case that is related to a specific compound, in which the compound's dynamics and kinetics are analysed and potential solutions to the given case are discussed.

### Description of the course

To understand what active compounds, either natural or synthetic, from foods or drugs, can do in the body, you need to understand how these substances act and how the body handles these compounds. Within this course, the principles of actions of bioactive substances (pharmacodynamics) and how the body handles these bioactive substances through the processes of absorption, distribution, metabolism and excretion (pharmacokinetics) will be studied. The principles of toxicology, how toxic substances affect biological systems, will be introduced. You will learn how to use these principles by studying real life cases of using medicinal products and intoxications, and you will analyse a specific case yourself.

### Literature

Rang H.P., Ritter J.M., Flower R.J., Henderson G. (2016). Rang and Dale's Pharmacology (8th ed.), London: Elsevier Churchill Livingstone.

Timbrell, J.A. (2008) Principles of Biochemical Toxicology (4th ed.), Boca Raton, FL: CRC Press.

Original research articles.

### Instructional Format

Lectures and tutorial meetings

### Assessment

- Case presentations.
- Written exam

### This module may be a prerequisite/recommended for:

Food Safety

## **VSC2104 Molecular Biology**

*2000 (Life) Science Course*

5 ECTS, Fall Semester, Period 2

### **Course Coordinator**

Herman Popeijus, Human Biology, FHML, Maastricht University

Contact: h.popeijus@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ VSC1101 Introduction to Biology or equivalent

### **Recommendations**

Interest in biology at molecular level

### **Objectives**

- To give insight into the basics of molecular biology
- To provide the basics of gene expression and gene control
- To provide the theory behind genetically modified organisms

### **Description of the course**

The general aim of this course is to obtain knowledge about the molecular processes in cell signalling and control of gene expression. Topics include intracellular signalling pathways; chromatin structure and remodelling and finally genetic modifications.

### **Literature**

Molecular Biology of the Cell, Alberts or equivalent books

### **Instructional Format**

Lectures and tutorial meetings

### **Assessment**

Midterm (30%) and end term examination (70%); MCQ and open ended questions

## **VSC2105 Microbiology**

*2000 (Life) Science Course*

5 ECTS, Spring Semester, Period 5

### **Course Coordinator**

Herman Popeijus, Human Biology, FHML, Maastricht University

Contact: h.popeijus@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ VSC1101 Introduction to Biology or equivalent

### **Recommendations**

Interest in microbiology.

### **Objectives**

- To provide students with basic knowledge of bacteria, fungi and viruses
- To give insight into the world of microbes and viruses including a few examples from human perspective

### **Description of the course**

In this course the students obtain basic knowledge of microbiology, i.e. of bacteriology, virology and environmental and applied microbiology. You study the characteristics of a selection of micro-organisms in relation to their related infectious diseases.

### **Literature**

Microbiology: An Introduction, Tortora, Gerard J/Funke, Berdell, R/Case, Christine L, ISBN 9781292099149

### **Instructional Format**

Lectures and tutorial meetings

### **Assessment**

Midterm (30%) and end term examination (70%); MCQ and open ended questions

### **This module may be a prerequisite/recommended for:**

Gut Microbiology

## VSC2106 Brain and Action

2000 (Life) Science Course

5 ECTS, Spring Semester, Period 4

### Course Coordinator

Anneloes Oppenhuizen, University College Venlo, FHS, Maastricht University

Contact: [anneloes.opperhuizen@maastrichtuniversity.nl](mailto:anneloes.opperhuizen@maastrichtuniversity.nl)

### Pre-requisites

- ✓ None

### Recommendations

The course is open for all students, however a genuine interest in neuroscience is recommended as the title of the course really covers the content

### Objectives

- To make students familiar with the basic division, anatomy and functions of the central and peripheral nervous system.
- To gain knowledge of the workings and anatomy of the brain's most important structures.
- To gain basic practical knowledge of brain dissection.

### Description of the course

Human beings mostly go through their lives without paying much attention to their actions such as breathing, eating and even learning. Our brain seems to take care of us in an almost effortless way by planning, initiating and executing our actions and by regulating our somatic homeostasis. The course Brain and Action is concerned with exactly how the nervous system does so. The course deals with the scientific study of the central and peripheral nervous system as well as with some of the latest developments in neuroscience. Via problem based learning tasks, both the anatomy and functions of important neurological structures like the spinal cord and the brain are examined.

Questions that will be raised continually during the course are, e.g.: What is the hippocampus? What function does the corpus callosum have? How does the brain develop both pre- and postnatally? How does neurotransmission take place? Etc.

### Literature

Bear, M.F., (2016). Neuroscience: Exploring the brain (4th ed.). ISBN-13: 978-0781778176

### Instructional Format

Lectures and tutorial meetings

### Assessment

Practical attendance (fail/pass), a paper, and an exam

### This module may be a prerequisite/recommended for:

Performance Psychology in Sports and Business

## **VSC2201 Epidemiology of Food; The Relationship Between Food and Health**

*2000 (Life) Science Course*

5 ECTS, Spring Semester, Period 4

### **Course Coordinator**

Simone Eussen, Department of Epidemiology, FHML, Maastricht University

Contact: [simone.eussen@maastrichtuniversity.nl](mailto:simone.eussen@maastrichtuniversity.nl)

### **Pre-requisites**

- ✓ VSK1002 Research Methods I

### **Recommendations**

None

### **Objectives**

- To obtain knowledge on foods and nutrients, and recommended intakes
- To obtain knowledge on different dietary assessment methods
- To gain insight in the relation between diet and risk of important chronic diseases, such as cancer and cardiovascular diseases

### **Description of the course**

The foods we consume each day contain thousands of specific nutrients and chemicals. Students will be introduced in nutritional epidemiology by lectures, tutorial groups, and self study. The course will focus on different methods to measure dietary intake, as well as on the relation of diet with most relevant chronic diseases.

### **Literature**

Willett W. Nutritional Epidemiology. ISBN978 0 19 975403 8.

This material is available in the Reading Room, UM-Library

### **Instructional Format**

Lectures and tutorial meetings

### **Assessment**

The final exam will exist of open questions.

### **This module may be a prerequisite/recommended for:**

Food Technology and Processing, Healthy Life Cycle

## VSC2202 Food and Disease

### 2000 (Life) Science Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Ellen Blaak, Department of Human Biology, FHML, Maastricht University

Contact: e.blaak@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

Students should have highschool level knowledge of biology or follow Introduction to Biology first.

Basic knowledge on the macronutrients and micronutrients

Basic knowledge on chemistry and biochemistry

#### Objectives

To gain knowledge and insight in:

- Nutrition (macro and-micronutrients), bioactive substances, anti-oxidants
- Physiology and anatomy of the gastro-intestinal tract
- Intermediary metabolism
- The main diet-related chronic diseases
- Dietary recommendations
- Novel and functional foods and their impact on human metabolism
- Multifactorial problems like obesity and diabetes and cardiometabolic diseases, insight in their etiology
- Impact of lifestyle in the prevention of chronic metabolic diseases (mainly diet)
- Basic principles of the measurement of dietary intake, dietary status and energy expenditure

#### Description of the course

This course covers the basics of normal nutrition for optimal health outcomes and evidence-based diets for a variety of diseases. Participants will learn the fundamentals of nutrition science, how food is digested and stored within the human body and to build upon these to explore the impact of nutrients (macro- and micronutrients) in the prevention of chronic metabolic diseases like obesity, diabetes and cardio-metabolic diseases.

#### Literature

This literature section only involves basic textbooks, more specific articles will be provided in the course manual.

Basic literature:

- Insel P. - *Nutrition* – 4<sup>th</sup> edition - Jones and Bartlett publishers
- Hall, J and Guyton A - *Guyton and Hall Textbook of Medical Physiology* – 13<sup>th</sup> edition
- McArdle W.D., Katch F.I., Katch V.L - *Exercise Physiology: Nutrition, Energy and Human Performance* - 8<sup>th</sup> edition
- Frayn, Keith N - *Metabolic regulation: a human perspective* – 3<sup>rd</sup> edition - Wiley-Blackwell Oxford 2010
- Silverthorn, Dee Unlaub - *Human Physiology: An Integrated Approach* – 7<sup>th</sup> edition - Pearson
- Bray, G.A. & Bouchard, C. - *Handbook of obesity* – 3<sup>rd</sup> edition

### **Instructional Format**

Lectures and tutorial meetings, practical training designing a nutritional experiment

### **Assessment**

Course exam contains open questions and accounts for 75% of end grade. An assignment including a presentation on a metabolic pathway accounts for 25% of the end grade.

### **This module may be a prerequisite/recommended for:**

Food Technology and Processing, Healthy Life Cycle, Clinical Nutrition, Food Safety

## **VSC2203 Food Technology and Processing**

*2000 (Life) Science Course*

5 ECTS, Spring Semester, Period 5

### **Course Coordinator**

Henk-Jan Meijer and Gérard de Wildt HAS University of Applied Sciences

Contact: iris.burks@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ VSC1101 Introduction to Biology

### **Description of the course**

Food is a complex matrix of chemical reactions and interactions that will provide a structure that identifies each type of product. Adding, removing or replacing ingredients is more complicated than it looks due to the effects on the food matrix. This course will highlight the different processes used in the food industry to elaborate and modify food. Besides, you will learn how different ingredients interact and react within each other to create physical and chemical properties that affect the sensory perception of your food.

### **This module may be a prerequisite/recommended for:**

Food Innovation (as of 2020 a prerequisite for Sustainable Food Production)



## VSC2204 Public Health Policy Making

2000 (Life) Science; Social Science Course

5 ECTS, Fall Semester, Period 2

### Course Coordinator

Hans Maarse, Health Services Research, FHML, Maastricht University

Contact: h.maarse@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

VSC1201 Introduction to Public Health

### Objectives

- To give students insight into the basics of public policymaking
- To give students insight into a number of basic issues in public health policymaking including the governance of public health
- To give students insight into the structure and dynamics of the health care system and health care policymaking
- To give students insight in EU regulation of public health

### Description of the course

Students will become familiar with the following topics in public health: the structure and functions of the health care system including diversity in health systems; essentials of public policymaking with an emphasis on puzzling, powering, participation, institutional structure and communication; the objectives and instruments of public health policy-making; impact of contextual factors on public health; impact of health care on public health; governance of public health; food politics; addressing public health crises and coping with uncertainty in public health; precautionary principle; EU regulation of public health; moral issues in public health; public health as global security threat.

### Literature

- An e-reader with original articles will be available at the start of the course.
- Book: Gill Walt, HEALTH POLICY, Zen Books
- References to various websites

### Instructional Format

Lectures and tutorial meetings

### Assessment

- Students are required to write a paper on a self-selected topic in which they apply the concepts and insights gained during the course (weight: 50%)
- Written test at the end of the course (weight 50%)

## VSC2205 Nutrition and Metabolism

2000 (Life) Science Course

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Misha Vrolijk, University College Venlo, FHS, Maastricht University

Contact: m.vrolijk@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC1101 Introduction to Biology or equivalent

### Recommendations

None

### Objectives

After finishing the course, students are able to:

- Explain the digestion and metabolism of the macronutrients (carbohydrates, lipids, protein).
- Identify, explain and discuss the main metabolic pathways and how they are regulated.
- Explain the functions and metabolism of micronutrients and describe their role in the different metabolic pathways.
- Identify, explain and discuss the different types of muscles, their working mechanisms and their metabolic processes.
- Use the obtained knowledge to examine energy production and metabolic regulation, the effects of exercise duration and intensity, the effects of nutritional status and the effects of training on (energy) metabolism.

### Description of the course

Nutrition is a multidisciplinary science that covers the role of food in health and disease. Advances in biomolecular science have increased the focus of nutrition on the metabolic pathways that transform nutrients. In this course, students will learn about human nutrition, and how the different nutrients are used by the body to maintain energy homeostasis. The focus will be on biochemical reactions that take place in cells, how these reactions are influenced and regulated by the different nutrients and what the consequences are for the whole body.

The structural and chemical characteristics of nutrients, their metabolism and their roles in human health are considered in this unit. Examples from current research will be used to illustrate how nutrients are metabolized, mostly in health, and the expanding scope of research in human nutrition.

### Literature

David A. Bender.(2004) Introduction to nutrition and metabolism. 3rd ed. Taylor & Francis e-Library.  
Original research articles.

### Instructional Format

Lectures and tutorial meetings

### Assessment

The learning outcomes of this course will be assessed by two means.

- A written final exam (with open and multiple choice questions); and
- An oral presentation.

**This module may be a prerequisite/recommended for:**

Sports Nutrition and Homeostatic Principles

## **VSC2207 Plant Biology and Agriculture**

*2000 (Life) Science Course*

5 ECTS, Fall Semester, Period 2

### **Course Coordinator**

Paul Passarinho, Institute of Applied Natural Sciences, Fontys University of Applied Sciences

Contact: p.passarinho@fontys.nl

### **Pre-requisites**

- ✓ VSC1101 Introduction to Biology

### **Recommendations**

None

### **Objectives**

- To give insight into the plant kingdom and its significance for mankind, through agriculture and the exploration of natural resources.
- To provide students with a solid understanding of plant evolution, development and function in relation to their environment.
- To acquaint students with crop improvement challenges and methods in the context of sustainable food supply.

### **Description of the course**

During this course you will gain insight in the importance of plants for life on earth and their unique adaptations to their environment. The course will illustrate major aspects of plant evolution, morphology and function. Special attention will be paid to domestication and to the methods by which plants have been adapted for agriculture to function as a major resource for food and beyond. The latter will include an outlook on plant biotechnology and emerging technologies.

### **Literature**

Original research articles.

To be complemented by:

Botany: An introduction to Plant Biology, Sixth Edition James D. Mauseth - ISBN: 9781284077537.

### **Instructional Format**

Lectures and tutorial meetings

### **Assessment**

Case presentation and final exam (open questions and multiple choice)

## VSC2301 Operations Management

*2000 (Life) Science; Social Science Course*

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Aida Abiad, Quantitative Economics, SBE, Maastricht University

Contact: a.abiadmonge@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

Basic mathematics and statistics

### Objectives

- Students will practice managerial skills and mathematical/statistical methods to optimize the decisions involved in product development and management of operations.

### Description of the course

Recently, the online retailer Amazon rolled out its one-hour delivery operation in the USA, offering customers the possibility to receive a package ordered via an app within an hour. This requires the company's supply chain management and logistics to operate smoothly. Did you ever wonder how companies like Amazon manage to optimize their operations so that customers continue to be satisfied? How do they decide on their sales processes? Their ordering and shipment operational decisions?

In this course we study what it takes to successfully develop products and bring them to the market, providing an understanding of the processes involved in manufacturing industries and service sector. Topics include decision-making, capacity planning, aggregate planning, forecasting, inventory management and quality control.

### Literature

Management of Operations and Product Development, by A. Grigoriev and B. Foubert (Maastricht University), McGraw-Hill Custom Publishing.

### Instructional Format

Tutorial meetings

### Assessment

Participation and final written exam

### This module may be a prerequisite/recommended for:

Production Planning and Management

## VSC2302 Calculus

### 2000 (Life) Science Course

5 ECTS , NOT OFFERED IN 2018-2019 Contact: [campusvenlo-advising@maastrichtuniversity.nl](mailto:campusvenlo-advising@maastrichtuniversity.nl) if you wish to take a similar course.

### Course Coordinator

TBA

Contact: [campusvenlo-advising@maastrichtuniversity.nl](mailto:campusvenlo-advising@maastrichtuniversity.nl)

### Pre-requisites

✓ None

### Recommendations

None

### Objectives

Nowadays calculus is a tool used almost everywhere in the modern world to describe change and motion. Calculus also provides important tools in understanding functions and has led to the development of new areas of mathematics. The objective of this course is to introduce the fundamental ideas of the differential and integral calculus of functions of one or more variables. Emphasis is on an understanding of the basic concepts and techniques, and on developing the practical skills to solve problems from a wide range of application areas. After completing this course the student will obtain a theoretical notion of the basic topics in applied mathematics, and will be able to validate all kinds of mathematical arguments.

### Description of the course

Calculus introduces the students to a theoretical notion of the basic concepts in applied mathematics. The course will start with discussing complex numbers, followed by limits and formalizing these. Next derivatives are defined in terms of limits and the approach for computing derivatives is discussed. Derivatives are then used for approximating functions with Taylor series (including error bounds) and for numerical optimization with Newton's method. After this we will discuss Riemann sums, the fundamental theorem of calculus, antiderivatives and different integration methods. Then we focus our attention on infinite series with special attention to geometric and Fourier series. Both the intuition behind the concepts and their formal definitions will be presented along with simple examples of formal mathematical proofs.

### Literature

TBA

### Instructional Format

Lectures and tutorials sessions. There is an attendance requirement of 83% for the total of all sessions. Moreover, some practical sessions contain an assignment. These assignments influence your exam grade.

### Assessment

One mid-term assignment weighted towards the final grade. A closed-book, open-questions and practical exam at the end of the course. Possibly, a closed-book, open-questions, practical re-sit exam.

## VSC2303 Statistics 2

*2000 (Life) Science; Social Science Course*

5 ECTS, Spring Semester, Period 5

### Course Coordinator

Anke Wesselius, Complex Genetics, FHML, Maastricht University

Contact: anke.wesselius@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC1301 Statistics 1

### Recommendations

- Knowledge of basic and advanced inferential statistics is a prerequisite for many Dutch Master programmes

### Objectives

- To provide students with advanced knowledge on inferential statistics

### Description of the course

During statistics 1 you got acquainted with the basics of inferential statistic and simple statistical techniques to analyze your data. Adding to the statistics you learned during your first year, “statistics 2” will guide you through a number of intermediate-level statistics. You will learn: a) how to compare three or more groups or means, b) to study the relationship between two or more variables, and c) basic principles and the application of survival analysis. Furthermore you will learn how to apply these topics using the software program SPSS.

### Literature

Andy Fields; Discovering Statistics Using IBM SPSS Statistics; 5th edition; Sage Publications Ltd

### Instructional Format

Lectures and tutorial meetings

### Assessment

- Oral Presentation / Written assignment
- Final open book exam

**This module may be a prerequisite/recommended for:**

Datamining

## VSC2401 Biochemistry

2000 (Life) Science Course

5 ECTS, Spring Semester, Period 4

### Course Coordinator

Gertjan den Hartog, Department of Pharmacology and Toxicology, FHML, Maastricht University

Contact: [gj.denhartog@maastrichtuniversity.nl](mailto:gj.denhartog@maastrichtuniversity.nl)

### Pre-requisites

- ✓ VSC1401 Introduction to Chemistry

### Recommendations

- VSC1101 Introduction to Biology

### Objectives

- To acquaint students with the molecular structure of important biomolecules...
- To provide students with knowledge on reaction mechanisms and kinetics
- To give insight into the mechanisms of enzyme action

### Description of the course

This course will review a number of molecular components that make up cells: amino acids and proteins, carbohydrates, nucleotides and nucleic acids, and lipids. In the second half of the course the focus will shift to the description of (bio)chemical reactions, their mechanisms and factors that influence their rate. The final topic of the course will be enzymes and how these proteins speed up essentially all of the thousands of biochemical reactions that take place in the cell.

### Literature

Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil. Harper's Illustrated Biochemistry. (accessible via Access medicine:

<http://accessmedicine.mhmedical.com/book.aspx?bookid=1366>

Bettelheim: Introduction to General Organic and Biochemistry

Also useful: Garrett and Grisham: Biochemistry 5th edition (or newer).

Additional literature will be handed out during the course.

### Instructional Format

Lectures and tutorial meetings

### Assessment

Presentation

Final test



## VSC3101 Gut Microbiology

3000 (Life) Science Course

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Koen Venema, Department of Human Biology, FHML, Maastricht University

Contact: k.venema@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC2105 Microbiology

### Recommendations

Not suited for freshmen

### Objectives

- To acquaint students with microbiology of the gastrointestinal tract;
- To give insight in the role of the gut microbiota in health and disease;
- To provide students with tools to use the acquired knowledge to develop functional foods that positively modulate the gut microbiota.

### Description of the course

This course is a sequel to Microbiology, and focuses on the microorganisms of the intestinal tract, including bacteria, fungi and viruses. It deals both with the microbiome of the healthy gut and on the role of microorganisms in a range of diseases. Furthermore, ways to influence the gut microbiome with food components, amongst which pre- and probiotics, are discussed.

### Literature

- 1) Gut microbiome as a clinical tool in gastrointestinal disease management: are we there yet? Quigley EM. Nat Rev Gastroenterol Hepatol. 2017 Mar 30. doi: 10.1038/nrgastro.2017.29.;
- 2) special focus issue of Gut Microbes on the impact of diet on gut microbiota composition and function;
- 3) The Human Intestinal Microbiome in Health and Disease. Lynch SV, Pedersen O. N Engl J Med. 2016 Dec 15;375(24):2369-2379.;
- 4) Impact of maternal nutrition in pregnancy and lactation on offspring gut microbial composition and function. Chu DM, Meyer KM, Prince AL, Aagaard KM. Gut Microbes. 2016 Nov;7(6):459-470.;
- 5) Towards microbial fermentation metabolites as markers for health benefits of prebiotics. Verbeke KA, Boobis AR, Chiodini A, Edwards CA, Franck A, Kleerebezem M, Nauta A, Raes J, van Tol EA, Tuohy KM. Nutr Res Rev. 2015 Jun;28(1):42-66. doi: 10.1017/S0954422415000037.

### Instructional Format

Lectures and tutorial meetings

### Assessment

Midterm exam = opinion paper; final exam = open questions/multiple choice

## VSC3102 Healthy Life Cycle

3000 (Life) Science Course

5 ECTS, Spring Semester, Period 5

### Course Coordinator

Aalt Bast, University College Venlo, FHS, Maastricht University

Contact: a.bast@maastrichtuniversity.nl

Anneloes Opperhuizen, University College Venlo, FHS, Maastricht University

Contact: anneloes.opperhuizen@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC2201 Epidemiology of Food or VSC2202 Food and Disease

### Recommendations

### Objectives

- To acquaint students with the notion that many processes (including their interactions) may influence one's health throughout the life cycle
- To provide more in-depth insight into some important processes that underlie an (un)healthy life cycle

### Description of the course

Throughout their lives, humans are exposed to various factors that influence their physical and mental health. Some of these factors are detrimental to health while others have important benefits. The course takes an interdisciplinary perspective, focusing not only on biological, but also some psychological and social factors that determine a healthy life – from conception to old age. Examples of questions that will be addressed include: How does psychological stress experienced during pregnancy influence the infant's health as it grows up? Do dietary supplements help us lead longer and healthier lives? Why do we age, and can we slow down the ageing process?

### Literature

TBA

### Instructional Format

Lectures and tutorial meetings

### Assessment

Final exam (open questions and multiple choice), presentations

## VSC3201 Clinical Nutrition

3000 (Life) Science Course

5 ECTS, Spring Semester, Period 4

### Course Coordinator

Peter Joris, Department of Human Biology & Movement Sciences, FHML, Maastricht University

Contact: p.joris@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC1101 Introduction to Biology

### Recommendations

VSC2102 Homeostatic Principles, VSC2202 Food and Disease

### Objectives

1. To examine the role of diet on age-related diseases
2. To understand how nutrients prevent age-related diseases by exploring underlying mechanism
3. To critically evaluate recent manuscripts discussing dietary interventions in health and disease

### Description of the course

In this course, the role of nutrients to prevent age-related diseases in humans will be considered, as well as underlying mechanisms. In addition, it will be addressed how this knowledge is translated into different forms of nutritional support in a clinical setting. Finally, attention will be given to recent manuscripts discussing dietary interventions. Examples from real-life situations will be used.

### Literature

- Students are not required to buy a specific book
- Original research articles will be used

### Instructional Format

Lectures and tutorial meetings and one practical training

### Assessment

- A final written exam consisting of open questions
- A scientific assignment that has to be presented and discussed in front of your fellow-students (PowerPoint presentation)

## VSC3202 Health Education and Communication

*3000 (Life) Science; Social Science Course*

5 ECTS, Spring Semester, Period 4

### Course Coordinator

Geert Rutten, University College Venlo, FHS, Maastricht University

Contact: geert-rutten@maastrichtuniversity.nl

Francine Schneider, Department of Health Promotion, FHML, Maastricht University

Contact: francine.schneider@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSS2102 Behaviour Change or
- ✓ VSS2105 Social Psychology

### Recommendations

For this course knowledge of behavior and behaviour-change is required, since it is the core of this course. If your knowledge is limited make an effort to read into these subjects. The Intervention Mapping book includes two chapters (2 and 3) about theories of behavior and the environment that can be of help in this respect.

Having participated in course VSC1201 Introduction to Public Health is beneficial, but not a prerequisite.

### Objectives

- To explain the planned and systematic approach to the development of health promoting interventions
- To systematically develop a theory based health promoting intervention
- To integrate creativity in the systematic approach of the development of a health promoting intervention

### Description of the course

Unhealthy behavior, such as smoking, drinking too much alcohol and physical inactivity are main causes of avoidable disease and mortality. If you participated in the course Introduction to Public Health, you have seen that public health is influenced by factors at different ecological levels, the individual, interpersonal, organizational, community and public policy level. As a consequence, public health cannot be improved by focusing on a single perspective or discipline. Although your first thoughts may go to education, there are several other ways if you intend to change health related behaviors. For instance changes in the physical environment, the organization of facilities or law and legislation. So, how do you handle it? How can you develop interventions that help the target group to adopt a healthier lifestyle or to adhere to safety regulations at work for instance, taking that complex process of causative relationships into account? These are the kind of questions you will be confronted with and will be supported to find an answer to in this course. Given the broad and multidisciplinary perspective, which may easily lead to confusion, it is important to use a planned and systematic approach in order to maintain a sound overview on the process and to enhance the chance of the design of a coherent and effective program. In this course you will work in small groups and engage in the planned and systematic development of a health promoting intervention. You will have to define the problem, identify the behavioral and environmental factors contributing to the problem, identify the environmental agents and the behavioral determinants of the primary target group and the environmental agents. Subsequently, you will choose methods of change, which you will have to translate into practical applications. Finally you will combine these methods and applications into a coherent health promoting program.

### Literature

A copy of the IM book will be available in the UCV library. The book provides all the information that is required to develop, implement and evaluate health promotion programs. This book is not only useful during this course, but also in case you are planning to engage in a Master program that includes studying human behavior. It is also useful as a great reference work for anyone who is professionally involved in behavior change initiatives. Therefore we strongly recommend students who have special interest in the topic of this course to buy the IM book: Planning Health Promotion Programs: An Intervention Mapping Approach, 4<sup>th</sup> edition (2016) by L. Kay Bartholomew Eldredge, Christina Markham, Robert A.C. Ruiter, Maria E. Fernández, Gerjo Kok, and Guy S. Parcel.

Students need to search for additional literature (using e.g., PubMed, PsycINFO, and Google Scholar) regarding the specific health problem they target with their small group

### Instructional Format

Brief lectures

Work shops

Working groups Assessment

### Assessment

A presentation of the logic model of the problem, a paper including your intervention plan and a team charter depicting the way you cooperated as a team during the course

## **VSC3203 Food Innovation**

*3000 (Life) Science Course*

5 ECTS, Fall Semester, Period 1

### **Course Coordinator**

Alvaro Garcia Fuentes, University College Venlo, FHS, Maastricht University

Contact: a.garciafuentes@maastrichtuniversity.nl

### **Pre-requisites**

At least to have taken two of the recommended courses.

### **Recommendations**

Some other courses that could be handy for this course are:

VSC2101: Psychology of eating

VSC2202: Food and disease

VSC2201: Epidemiology of food

VSC3201: Clinical nutrition

VSC3204: Food safety

VSS3202: Consumer behaviour

### **Objectives**

- To examine in detail the process of food innovation by identifying the drivers to create new food products.
- To deconstruct different food products by outlining and structuring their production processes, ingredients, advantages and disadvantages.
- To outline the idea of a food product through the formulation and presentation of a dossier that is able to sell the idea.
- To justify the decisions taken to achieve the previous objectives by reflecting on the whole process of food innovation.

### **Description of the course**

What is food innovation? What is it required to innovate in one of the most competitive industries, yet one with the shortest budgets in R&D?

These are some of the questions that we will analyze in this advanced level course. We will start by clarifying the concept of innovation and how it can be applied to food.

The course focuses on the development of an innovative food concept that is also attractive to the consumers. We will work in intensive tasks for generation of ideas for food product development. You will have to make use of your creativity, but also of the knowledge gained to this point during your bachelor to create a food product idea that could be a success in the market and that provides a clear benefit to the consumer.

### **Literature**

Literature will be based on original research articles. When books are needed, they will be available in the library.

### **Instructional Format**

Workshops, tutorials and lectures

### Assessment

The assessment will be divided in the pitch of an idea, and elaboration and presentation of a dossier for a food product and a final written exam.

## VSC3204 Food Safety

3000 (Life) Science Course

5 ECTS, Spring Semester, Period 2

### Course Coordinator

Alie Boer, de, University College Venlo, FHS, Maastricht University

Contact: a.deboer@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC2103 Pharmacology and Toxicology and or VSC1201 Introduction to Public Health

### Recommendations

None

### Objectives

Students can...

- Explain, appraise and prioritise basic food safety concepts.
- Analyse microbiological, chemical and allergenic food safety issues.
- Critically evaluate food safety legislation and their implementation.
- Present (in groups) the scientific, public health and legal evaluation of a given food safety issue and provide science-based recommendations how the issue can be solved.

### Description of the course

With consumers demanding both safer products and more information about the products they consume, the responsibility of the government and the industry to assure safety of foods is becoming more important. This course focusses on the different aspects concerning safety in all stages of food production and consumption. Therefore safety issues concerning production, storage and distribution of foods as well as the control of these aspects with standards and regulations will be studied. Food safety hazards as contamination and food authenticity and food defense issues will also be addressed.

### Literature

Original research articles

### Instructional Format

Lectures and tutorial meetings

### Assessment

- Case presentations
- Written exam

### This module may be a prerequisite/recommended for:

European Food Law



## VSC3205 Public Health Implementation and Evaluation

*3000 (Life) Science; Social Science Course*

5 ECTS, Spring Semester, Period 5

### Course Coordinator

Geert Rutten, University College Venlo, FHS, Maastricht University

Contact: geert-rutten@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSS2102 Behaviour Change or
- ✓ VSS2105 Social Psychology

### Recommendations

For this course knowledge of behaviour and behaviour-change is required, since it is the core of this course. If your knowledge on that subject is limited make an effort to read into that subject. The Intervention Mapping book includes two chapters (2 and 3) about theories of behaviour and the environment that can be of help in this respect.

Having participated in the course VSC1201 Introduction to Public Health and/or VSC3202 Health Education and Communication is beneficial, but not a prerequisite.

### Objectives

- To explain theories of implementation and the principles of evaluation
- To identify implementation and evaluation stakeholders
- To integrate knowledge of concepts and theories into a sound implementation plan
- To develop an evaluation plan

### Description of the course

The impact of health promoting interventions depends not only on the effectiveness of the program itself, but also on the reach in the population. Programs that have proven to be effective, will have little results if they are never used or have limited use, are used in an improper manner, or when use is discontinued before a health impact has been able to manifest. As a consequence, closing the gap between what we know works and the extent to which it is applied in communities or health settings is a prerequisite for improving population health. About 30 years ago, awareness has emerged that implementation of health promoting programs is not self-evident. It often requires an active approach for health promoting programs to become adopted or implemented. Therefore, it is important to consider the adoption and implementation of a program in an early stage, preferably already during program development.

Barriers for program implementation may be the result of problems during development and evaluation of the program which limits the acceptability, usability and relevance of the program. Also, inadequate interventions may have been used to improve adoption, implementation and maintenance of the program. Finding answers about the effectiveness of the program requires an effect study. However, it is equally important to find an answer to why a program may or may not be effective. Evaluating a program enables developers to improve their program and/or their implementation strategy. It provides insight in which parts of program content are acceptable, useable and relevant to the adopters and which are not. It also provides them information about the success of their implementation strategy.

In this course you will be introduced to the theory and practice of implementation and evaluation of health promoting programs. Cooperating in small groups, you will write an implementation and evaluation plan for a specific health intervention. In order to develop this plan you will first gain knowledge and understanding of concepts and theories of implementation and the theory of evaluation. You will also study the context, for which you have to identify the stakeholders and their needs and interests. This analysis will provide you the information to choose appropriate implementation strategies. Furthermore, you will have to develop a thorough understanding of the program and its outcomes, in order to be able to evaluate it.

All this knowledge will serve the development of a sound implementation and evaluation plan.

### Literature

The books listed below provide all the information that is required to develop, implement and evaluate health promotion programs. Students are strongly recommended to use these resources:

- Planning Health Promotion Programs: An Intervention Mapping Approach, 4th edition (2016) by L. Kay Bartholomew Eldredge, Christina Markham, Robert A.C. Ruiter, Maria E. Fernández, Gerjo Kok, and Guy S. Parcel. This book is not only useful during this course, but also in the other courses of the Master program and it is a great reference-work for your professional life. (Available on campus)
- Evaluation. A systematic approach, 7<sup>th</sup> edition (2004) by Peter H. Rossi, Mark W. Lipsey and Howard E. Freeman. (Available on campus)
- Diffusion of innovations, 5<sup>th</sup> edition (2003) by Rogers, EM. New York: The Free Press. (Available on campus)

Further literature is available through the reference list and indicated in the course manual. Students need to search for additional literature (using e.g., PubMed, PsycINFO, and Google Scholar) regarding the specific topic and setting they target with their small group. A selection of tutorials by the UM Library is available at <http://library.maastrichtuniversity.nl/skills-and-support/> and might also be useful for this course (e.g., tutorials regarding finding your literature and referencing and avoiding plagiarism).

### Instructional Format

Lectures and tutorials

### Assessment

The course is currently under development.

## VSC3206 Nutritional Pharmacotherapy

3000 (Life) Science Course

5 ECTS, Fall Semester, Period 1

### Course Coordinator

Aalt Bast, University College Venlo, FHS, Maastricht University

Contact: a.bast@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC2103 Pharmacology and Toxicology

### Recommendations

None

### Objectives

- To give provide knowledge on pharmacotherapy in general for various diseases.
- To give insight in the possibilities to optimise pharmacotherapy with food, dietary components and food supplements.

### Description of the course

The course will start with an introduction on the role of reactive oxygen species in chronic diseases. Subsequently, pharmacotherapeutical options for various diseases like cardiovascular diseases (hypertension, heart failure), lung diseases (asthma, COPD, fibrosis, sarcoidosis), liver- and intestinal diseases (NASH, Inflammatory Bowel Disease), cancer, neurodegenerative diseases (Parkinson, Alzheimer, ALS), depression and gout will be discussed during the course. The role of nutrition and nutritional components on the efficacy and safety of the pharmacotherapy will be the common thread running through the course.

### Literature

- B. Halliwell and J.M.C. Gutteridge, Free Radicals in Biology and Medicine. 5th Edition. Oxford University Press (2015)
- H. P. Rang, J. M. Ritter, R. J. Flower, and G. Henderson, Rang and Dale's Pharmacology. 8th Edition. Churchill Livingstone, Elsevier (2015)
- Original research articles

### Instructional Format

Lectures and tutorials

### Assessment

Writing an assignment and a final exam (open questions)

## VSC3207 Sports Nutrition and Physiology

3000 (Life) Science Course

5 ECTS, Fall Semester, Period 2

### Course Coordinator

Khrystyna Semen, University College Venlo, FHS, Maastricht University

Contact: k.semen@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSC2102 Homeostatic Principles

### Recommendations

One of the physiology/nutrition courses

### Objectives

- To characterize changes in human body's functional systems during exercise;
- To analyse the physiological adjustments which may contribute to improved physical performance;
- To assess the value of a diet and particular nutrients for the physical performance;
- To reflect on the use of nutritional supplements in athletes.

### Description of the course

Engagement in the sport activities is widely recognized as an essential part of the healthy life-style. As more and more people practice recreational and competitive sports, the interest to changes in the human body which contribute to better athletic performance is increasing. Moreover, the importance of optimal nutrition as a basis for the physical activity is broadly emphasised.

"Sport Nutrition and Physiology" is a cross-disciplinary course during which you will learn how human body adapts to exercise and how its capacities can be influenced by training. You will build up thorough understanding on the application of the principles of adaptation in sport physiology, particularly, how energy transfer maintains physical performance. Upon completion of the course you will develop a deeper insight into the influence of nutrition on sports achievements. Special interest will be given to chronobiology for competitive sports and chronophasing of an individual. The value of nutritional supplements in athletes will be extensively analysed. In general, the knowledge gathered in the course will enhance general understanding of why a right balance between nutrition and physical activity is needed to ensure optimal health, performance and safety when practicing various types of physical activity.

### Literature

TBA

### Instructional Format

Lectures and tutorial meetings

### Assessment

TBA

## **VSC3501 Sustainable Food Production**

*3000 (Life) Science Course*

5 ECTS, Spring Semester, Period 4

### **Course Coordinator**

Sonja Floto-Stammen, International Fresh Business Management, University of Applied Sciences

Contact: iris.burks@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ VSC1501 Sustainable Development

### **Description of the course**

The emphasis of this course will be on the getting to know some tools and methods used in sustainability assessment. We will analyse several existing case studies to see how the methods and tools were applied. Issues of scale (case studies at global, regional and local level) and of stakeholders (who to involve) and of future-proofing (scenario studies) will be addressed. Content wise the course will focus on sustainable food chains. One of the great challenges of our time is feeding the extra billions of people to live on the planet.



## Social Sciences Courses

## **VSS1101 Introduction to Psychology**

*1000 Social Science Course*

5 ECTS, Fall Semester, Period 1

### **Course Coordinator**

Remco Havermans, Clinical Psychological Science, FPN, Maastricht University

Contact: r.havermans@maastrichtuniversity.nl

### **Pre-requisites**

✓ None

### **Recommendations**

Have an open mind, but not so open that your brain might fall out.

### **Objectives**

- You can define what psychology is exactly.
- You can illustrate how psychological concepts (e.g., love, intelligence) can be transformed into something that can be measured and studied .
- You can name, list, and distinguish key ideas within psychology.
- You can explain and reflect on psychological ideas and research.

### **Description of the course**

The American Psychological Association (APA) defines psychology as the scientific study of mind and behavior. This course aims to elucidate what the APA means by this. Psychologists wish to understand how and why we think, feel, perceive, and act in a certain way. Their research results quite often defy conventional wisdom and insights from psychology have proven useful for other fields such as management and marketing, law and justice, education, and (mental) health. This introductory course will cover topics ranging from the workings of the brain to consciousness, from intelligence to abnormal behavior, and from elementary sensations to wonderful visual illusions. It will tackle questions like: Do we have free will? Why do we blindly obey authority? Can we trust our own memory?

### **Literature**

An E-reader will be provided. The relevant literature references are listed in the course manual.

### **Instructional Format**

Lectures and tutorial meetings.

### **Assessment**

Two mid-term writing assignments and final exam (open/essay questions).

### **This module may be a prerequisite/recommended for:**

Performance Psychology in Sports and Business, Taste



## **VSS1201 Introduction to Business Administration**

*1000 Social Science Course*

5 ECTS, Fall Semester, Period 1

### **Course Coordinator**

Peter Bollen, Organisation and Strategy, SBE, Maastricht University

Contact: p.bollen@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ None

### **Recommendations**

None

### **Objectives**

- To introduce students to topics in business administration. In addition, the course prepares students for courses in marketing, organization, finance, strategy, supply chain management and accounting.

### **Description of the course**

Business administration studies problems within the firm and relates to problems in the fields of marketing and logistics, finance, accounting and information management and organization and strategy. This course introduces students in the various topics that are related to business administration so that students have basic knowledge for the more specialized courses in marketing, organization, finance, strategy, supply chain management and accounting. The integration of the knowledge on these topics will take place by running a management simulation that covers all stages of setting up and running a business (Market place live).

### **Literature**

- E-reader.
- Course material on the Market Place simulation.

### **Instructional Format**

Tutorial group meetings, team work and lectures.

### **Assessment**

A midterm test, tutorial group participation, participation and ranking in the market place management simulation.

## VSS1202 Principles of Economics

### 1000 Social Science Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Jona Linde, Economics (AE1), SBE, Maastricht University

Contact: j.linde@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

Knowledge of basic mathematical concepts such as solving equations, reading and working with graphs, manipulating inequalities, and elementary calculus. Students who lack this knowledge are advised to take VSC2302 Calculus first.

#### Objectives

- Learn to think like an economist.
- Introduction to fundamental economic principles, concepts, and models.
- In four special discussion sessions, we will talk about topics such as income distribution, behavioral economics, the question of whether Economics is a science or not, etc.

#### Description of the course

The undergraduate course Principles of Economics introduces key economic principles and concepts. We will investigate classical economic questions such as: will trade benefit all involved?, when and why can markets fail?, how can governments boost a country's production? Together we will critically examine the answers modern economics provides to these questions.

In addition you will learn how economists look at the world. More than any other social science, (mainstream) economics tries to capture human behavior through mathematical models. You will learn how to use simple mathematical models to describe people's choices and interactions between people. The possibilities and limitations of these models will be debated.

If all goes well you will leave this course with new insights into the many economic policy debates which dominate the news on an almost daily basis and a measured appreciation for mathematical models of human behavior.

#### Literature

N. Gregory Mankiw and Mark P. Taylor, Economics (third revised edition), 2014, South-Western Cengage Learning. ISBN: 978-1408093795

#### Instructional Format

This course is built around three blocks: lectures, group tutorials, and required readings. All lecture slides are available on eleUM. The purpose of the group tutorials is to deepen your understanding of the course material and to help you learn to apply it to alternative contexts.

### Assessment

There are four graded elements in this course

1. participation
2. leading a discussion hour
3. paper assignment
4. final exam

Furthermore, in order to pass the course, you first need to pass the participation requirement. Conditional on having passed the participation requirement, you have to achieve a course grade of at least 5.5. The course grade is determined from your final exam grade, the paper assignment, your participation grade, and your discussion leadership according to the following formula:

Course grade =  $0.40 \times (\text{final exam grade}) + 0.35 \times (\text{paper grade}) + 0.15 \times (\text{discussion leadership}) + 0.10 \times (\text{participation grade})$

## VSS1502 Law and Legal Reasoning

### 1000 Social Science Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Gustavo Arosemena Solorzano, International and European Law, Law, Maastricht University

Contact: gustavo.arsemena@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

- To introduce students to the content of modern law
- To introduce students to the discipline of legal reasoning
- To introduce students to the art of reading cases
- To explore the main differences between Civil Law and Common Law traditions
- To provide students a functionalist vision of law as a response to common human problems

#### Description of the course

The course introduces the fundamentals of law, it covers the basic principles that governs the different legal systems in the world. Instead of learning the specific contents of the law in a particular country (Dutch Law, German Law, English Law), the course focuses on the study of the principles that are shared by all legal systems. The course also teaches students to work with legal materials and to think like a lawyer. In this connection, students will work on analyzing the argumentation techniques found in real world judicial decisions in a workshop environment.

#### Literature

Compulsory:

Hage, J., Waltermann, A. & Akkermans, B. (eds.), Introduction to law (second edition), (Springer, 2017).

Reader (will be made available through Student Portal)

#### Instructional Format

Tutorial meetings and lectures

#### Assessment

Mid-term assignment and open question exam

#### This module may be a prerequisite/recommended for:

International Trade Law, European Food Law

## **VSS1701 Macro Sociology: An Introduction to Human Societies**

### *1000 Social Science Course*

5 ECTS, Spring Semester, Period 5

#### **Course Coordinator**

TBA, To be announced, FASoS, Maastricht University

Contact: campusvenlo-advising@maastrichtuniversity.nl

#### **Pre-requisites**

- ✓ None

#### **Recommendations**

None

#### **Objectives**

By the end of this course students will be able to:

- Identify the major divisions upon which modern, global, society is organized.
- Be conversant in the sociological concepts, thoughts and theories used to understand and explain these divisions.
- Apply sociological concepts and theories to the study of pertinent social problems.
- Reflect on the relevance and utility of sociology in the 'everyday' world and public policy-making.

#### **Description of the course**

The course is an introduction to sociology and focuses on the major divisions upon which modern global society are organized: class and socio-economic status; gender and sexuality; race and ethnicity. Not only does this course explore the social roots of these divisions, but uses sociological concepts and theories to facilitate understanding how these divisions work and why they operate the way they do. Importantly this course is global in its perspective, and expands its boundaries of analysis beyond north-western societies in order to acknowledge and appreciate the interconnection across human societies.

#### **Literature**

- Cohen, R., & Kennedy, P. (2012). Global sociology. Palgrave Macmillan.

#### **Instructional Format**

Traditional PBL format using lectures (2-3) and tutorial meetings (twice a week)

#### **Assessment**

Participation, weekly writing assignment, final written assignment (paper)

#### **This module may be a prerequisite/recommended for:**

Culture Politics and Society

## **VSS2101 Psychology of Eating**

### *2000 Social Science Course*

5 ECTS, Fall Semester, Period 2

#### **Course Coordinator**

Karolien Akker, van den, Clinical Psychological Science, FPN, Maastricht University

Contact: karolien.vandenakker@maastrichtuniversity.nl

#### **Pre-requisites**

- ✓ None

#### **Recommendations**

None

#### **Objectives**

- To provide insight into the various psychological influences on eating behaviour
- To provide insight into how the psychology of eating can be studied

#### **Description of the course**

Whether we eat, and how much we eat, is not just a mere consequence of the presence or absence of hunger and satiety hormones. Psychological processes too have powerful influences on eating behaviour. During this course, you will learn about a wide variety of these psychological influences. We will cover questions such as: Why do we like certain foods and dislike others? How does our social environment affect our eating behaviour? Why do we eat more from larger plates? How does our brain respond to the sight of tasty food? Why do some people overeat whereas others don't? What are eating disorders?

#### **Literature**

An E-reader will be provided. The relevant literature references (i.e., scientific articles) are listed in the course manual.

#### **Instructional Format**

Lectures and tutorial meetings.

#### **Assessment**

A writing assignment and final exam.

#### **This module may be a prerequisite/recommended for:**

Taste

## VSS2102 Behaviour Change

### 2000 Social Science Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Remco Havermans, Clinical Psychological Science, FPN, Maastricht University

Contact: r.havermans@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

- You can name and describe various psychological theories of behaviour and motivation.
- You can explain and argue how different theories can be applied to change people's behaviour.
- You can compare and contrast the main theories and ideas regarding behaviour change.
- You can design a behaviour change intervention and reflect on how to evaluate its efficacy.

#### Description of the course

Most people frequently engage in non-healthy behaviours. They eat too much, they drink too much, and they prefer lying on the couch rather than doing sports. People are often aware of the negative consequences of these behaviours, but it seems simply too difficult to resist all those temptations. During this course you will learn about how to change behaviour for the better. We will cover questions such as: Why is it so difficult to change our behavior, despite our best intentions? How can we effectively change unhealthy behaviours? Why are habits especially difficult to change?

#### Literature

An E-reader will be provided. The relevant literature references are listed in the course manual.

#### Instructional Format

Lectures, workshop, and tutorial meetings.

#### Assessment

A workshop and presentation on designing an effective behavioural intervention, and final exam (open/essay questions).

#### This module may be a prerequisite/recommended for:

Performance Psychology in Sports and Business

## **VSS2103 Cognitive Psychology**

### *2000 Social Science Course*

5 ECTS, Fall Semester, Period 1

#### **Course Coordinator**

To Be Announced, TBA , FPN, Maastricht University

Contact: Campusvenlo-advising@maastrichtuniversity.nl

#### **Pre-requisites**

- ✓ None

#### **Recommendations**

None

#### **Objectives**

- To provide students with insights into the foundations of cognitive psychology.
- To acquaint students with various cognitive processes: e.g. perception, attention, learning, memory, thinking, etc.
- To make students familiar with the basic concepts/theories of human information processing and the experimental designs used in cognitive psychology.

#### **Description of the course**

Cognitive Psychology is concerned with internal processes involved in making sense of the environment and deciding what action might be appropriate. The present course is concerned with theoretical and empirical perspectives on human cognition and the experimental methods to study cognition and perception. The topics discussed in the course, using a Problem Based Learning format, are amongst others: attention, perception, learning, memory, language, problem solving and reasoning. They will be discussed from different perspectives including experimental cognitive psychology, cognitive neuropsychology, cognitive neuroscience, and computational cognitive science.

#### **Literature**

A combination of basic books and E-reader will be used. The relevant literature references are listed in the course manual.

#### **Instructional Format**

Lectures and tutorial meetings.

#### **Assessment**

mid-term assessment: individual presentation

final assessment: written exam



## VSS2105 Social Psychology

### 2000 Social Science Course

5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

#### Pre-requisites

- ✓ None

#### Recommendations

None

#### Objectives

- You can recall and explain basic social psychological theories and models (e.g. attribution theory; bystander effect; relationship models) that explain how people's thoughts, feelings, and behaviour are influenced by the implicit or explicit presence of other people.
- You can deduce the relevance of some early experiments or readings (e.g. Sherif et al. (1998); Schachter (1951)) for the development of specific social psychology research areas.
- You can describe a specific social psychological theory and/or model and apply your knowledge about it to examples given to you.
- You can identify and choose academic sources that will give you additional, deeper understanding of a specific social psychological theory/concept beyond the compulsory reading and apply it correctly to example(s) chosen by yourself.
- You can describe orally a social psychological theory and/or model and explain how it relates to current/ everyday life example(s).
- You can demonstrate that you have read and grasped part of the compulsory reading by formulating a new question for your fellow students which requires them to recall, describe and/or comprehend at least two of the compulsory sources.

#### Description of the course

People do not exist on their own but are inherently social. Within these social structures people influence others and are in their turn influenced by others. There are highly visible forms of influencing other people's behaviour, like talking a friend into going bungee-jumping ("Come on, we will all go, you don't want to spoil this, do you?"). But social influence can also be more covert and can go beyond behavior, involving thoughts and feelings. In this course you study different social psychological concepts, theories and models and you apply them to current examples. Next to reading about classical themes from social psychology, such as conformity and cognitive dissonance, some more recent themes such as prejudices, stereotypes, 'attraction and relationships' and the influence of social media on how we (a) present our 'self' to others and (b) the types of social relationships that are formed..

#### Literature

- Hewstone, M., Stroebe, W., & Jonas, K. (2015). *An introduction to Social Psychology* (6th Ed). Chichester: Wiley. ISBN: 978-1-118-82353-8.
- Also an e-reader containing different academic articles.

#### Instructional Format

Lectures and tutorial meetings

#### Assessment

Presentation; Written Exam

**This module may be a prerequisite/recommended for:**

Performance Psychology in Sports and Business

## VSS2106 Economic Psychology

### 2000 Social Science Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Christina Rott, General Economics, SBE, Maastricht University

Contact: c.rott@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

Basic understanding of microeconomics (level comparable to course Principles of Economics), mathematics, and statistics. Advanced level of English.

#### Objectives

Acquiring a structured insight into the important roles of psychological factors and processes in the judgments, decision-making, and well-being of economic agents. Learning about the relations and differences between psychology and economics.

#### Description of the course

Increasingly, economists are discovering psychology as a means to enrich their models of economic behavior and well-being and to give them a better foundation. The importance of this is illustrated by the fact that Nobelprize winner in economics in 2002 was the distinguished psychologist Daniel Kahneman. He characterizes his research as a quest for the 'logic of the irrational'. Adam Smith already recognized that economic, just like other, behavior is motivated by an intriguing blend of 'rational' considerations and 'irrational' sentiments. The great challenge is to investigate the implications of the latter motives for economics.

This course aims to give an intensive introduction into this field. The first sessions will provide an overview of the psychology of judgment and decision making. Basic principles of rationality are compared with actual behavior in making decisions. There are important discrepancies between rational and actual behavior that are due not to random errors or mistakes but due to automatic and deliberate thought processes. These processes influence how decision problems are conceptualized and how future possibilities in life are evaluated. The latter sessions will be dedicated to further applications of how psychologic mechanisms influence economic decision-making in the field and their relevance for law and public policy.

#### Literature

TBA

#### Instructional Format

Lectures and tutorial meetings (PBL).

#### Assesment

Participation, presentation, and final exam.

#### This module may be a prerequisite/recommended for:

Performance Psychology in Sports and Business

## VSS2201 Advertising: Marketing Communication of Brands

2000 Social Science Course

5 ECTS, Fall Semester, Period 2

### Course Coordinator

Sabine Nievelstein, Marketing and Supply Chain Management, SBE, Maastricht University

Contact: s.nievelstein@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

VSS1101 Introduction to Psychology or VSS1201 Introduction to Business Administration

### Objectives

- Students acquire a basic insight into what brand management and integrated marketing communications (including advertising) entails from a strong consumer based perspective (consumer behavior and consumer psychology).
- Through working on different team assignments students become acquainted with applying the learned theory and knowledge to a real-life brand.
- Next to content knowledge, the assignments allow students to enhance some of their transferable skills: presentation skills, teamwork skills, writing skills, analytical skills, reflection skills and creativity skills.

### Description of the course

"As I woke up this morning and stumbled to the bathroom to refresh, I barely noticed the brand of toothbrush and toothpaste I used. I couldn't escape the brand of breakfast cereal though, because it screamed at me in huge typeface to enjoy my "coco-pops"...On my way to the train station I passed numerous signs, billboards and shop windows...It was only 8.00 am, but by now I had been exposed to over 250 commercial messages ranging from brand names and packaging to billboards, television ads and sponsored events. And of course, none of these messages had in any way affected me..." (Fennis, 2010, p. 2).

As customers we are surrounded by brands and marketing messages the entire day. In this course we cover the foundations of brand management and integrated marketing communications. We will take a strong consumer-based perspective, studying consumer behavior and consumer psychology literature and frequently applying the acquired knowledge in team assignments to a chosen brand. In the first 3.5 week we will focus on brand management addressing the nature of brands in consumers' minds, the concept of brand equity and which instruments can be used to build and leverage brands. In the second half of the course, we will focus on integrated marketing communications by having a look at the concept of Integrated Marketing communications, the communication process and theories of consumer behavior and response.

### Literature

No obligatory book but E-reader in reference list

### Instructional Format

In this course three instructional formats are used. 8 of the 12 tutorial group meetings follow the traditional PBL format. In four meetings students will have a post-discussion of the studied material in the first hour, followed by team presentations during the second hour. In these team presentations small

groups of students (2-3 students) present to their peers how one can apply the studied theory and knowledge to a brand of their choice. For the purpose of each specific team assignments, students will receive guidelines from the course coordinator. As there will be insufficient time during these 4 meetings to have a pre-discussion of the next task, the coordinator will provide the students with discussion questions that they can use to guide their self-study and the post-discussion during the next meeting. Lastly, two theoretical lectures will be provided, which might be supplemented by two guest lectures, in which two individuals working in the business field talk about brand communication in the real-world.

### Assessment

This course does not encompass a final written exam, but a final team assignment (presentation). The final grade is composed of (1) participation grade (2) several team assignments (presentations), (3) individual mid-term paper, and (4) the final team assignment (IMC Plan presentation).

## VSS2202 Intermediate Microeconomics

### 2000 Social Science Course

5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Andy Mackenzie, General Economics, SBE, Maastricht University

Contact: a.mackenzie@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

Statistics 1 (Quantitative Methods) and Principles of Economics. Students taking this course should be prepared to use and manipulate basic mathematical expressions. A good knowledge of the analysis of common functions and their derivatives will be an asset for the course.

#### Objectives

- To introduce students to the basics of microeconomic theory.
- To acquire skills in applying its analytical tools to real-life economic problems.

#### Description of the course

Economics is the study of exchange and tradeoffs. Within this world microeconomics focuses on how the smallest entities (e.g. an individual consumer or firm) take their decisions. Questions about what to buy, what to produce or how to allocate time all involve tradeoffs between different alternatives, and we will discuss models to better understand the decision processes of the agents involved. With these models in hand, we can then develop criteria by which to judge the efficiency and effectiveness of market structures, policies and institutions.

This course is a first introduction to microeconomics. It will present an overview of the basic models that constitute the foundations of modern economics. We will build the theory of the consumer and the producer from the bottom up to create models of market behavior. The goal is not to offer a complete description of the world as it exists; rather, we will seek to simplify reality with the goal of providing a concise description of a broad class of real-world circumstances.

As we progress, we will touch on examples of theory in applied settings to highlight and discuss how these models characterize much of the economic behavior we observe in the real world. After developing models of the market as a whole, we'll explore extensions of the theory to the strategic behavior of firms and individuals. The theory of strategic behavior will then be used to analyze, among other things, competition policy, environmental policy and even political competition between parties.

#### Literature

Varian H. (2009). Intermediate Microeconomics. (8th ed.). W. W. Norton & Company.

#### Instructional Format

There will be two regular, weekly tutorial group meetings supplemented by a number of lectures. The first lecture will introduce the course organization and content, and review the relevant mathematical background necessary to follow the course.

### Assessment

In order to pass the course students have to receive a passing participation grade, successfully complete a writing assignment and a final exam. If those requirements are satisfied the course grade is computed as follows:  $\text{Course Grade} = 0.2 * \text{Participation} + 0.3 * \text{Writing Assignment} + 0.5 * \text{Exam}$

## VSS2203 Finance and Investments

### 2000 Social Science Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Sjoke Merk, Finance, SBE, Maastricht University

Contact: j.merk@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

None

#### Objectives

- To understand how to invest
- To understand and apply the basic valuation tools
- To analyse financial articles published in newspapers like Financial Times, the Wall Street Journal, Bloomberg, and the Economist
- To be aware of the main developments in the world of finance and the financial markets, i.e. block chain and cryptocurrencies
- To think logically and analytically, apply mathematical techniques to a variety of problems, and critically evaluate these techniques by means of discussing real-life cases

#### Description of the course

Always wondered on how to make investment decisions, i.e. how to make money? This course will answer this question by introducing the theories, techniques, and strategies of investment management, with an emphasis on the global context of investment decisions. As you might know, today's business environment is more complicated than ever. This is illustrated by the recent financial crises and social-cultural, geopolitical & macro-economic developments that increasingly affect corporate decision making, e.g. Brexit, tariff-wars, and global political tensions. Corporate finance deals with the investment and finance decisions made by the management of companies in the pursuit of profit maximization. A company can finance its investments by means of borrowing money from banks, by issuing bonds and/or through the stock market. The course explores aspects of corporate finance, examining how companies interact with the financial markets and how managers' decisions affect the value of their company's shares, bonds, etc. These types of decisions influence the expected return and risk of the company. The course gives a broad overview of important issues in corporate finance and combines insights from economics, business, and psychology. The economic side of corporate finance deals with the maximization of shareholder wealth. To this end managers aim at securing the greatest possible return in exchange for accepting the smallest amount of risk. The course is largely based on real life cases that we discuss in an interactive manner. Students will debate on topics such as "How do corporations make investment and finance decisions?", "Should companies engage in green investments, i.e. the importance of CSR in investment decisions?" and "How to make use of recent financial innovations as blockchain, fintech, and cryptocurrencies?".

#### Literature

- Berk & De Marzo, Corporate Finance, Pearson Prentice Hall
- Original research articles

#### Instructional Format

PBL, lectures and tutorial meetings



## Assessment

Exam and participation

## **VSS2204 International Macroeconomics**

### *2000 Social Science Course*

5 ECTS, Fall Semester, Period 1

#### **Course Coordinator**

Tania Treibich, General Economics, SBE, Maastricht University

Contact: t.treibich@maastrichtuniversity.nl

#### **Pre-requisites**

- ✓ VSS1202 Principles of Economics

#### **Recommendations**

None

#### **Objectives**

- Learn how to analyze international trade, capital flows and exchange rates
- Learn how to interpret and understand various types of economic policies in an international context
- Understand current discussions about developments in international relations

#### **Description of the course**

This course provides a detailed insight into global economic issues. The course starts with an analysis of the determination of exchange rates. After this, the course addresses a number of issues in open macroeconomics, including the working of monetary and fiscal policy, and the economics of the euro. This background will be used to discuss and to critically evaluate current developments in the world economy, such as the current crisis, globalization, monetary and fiscal policy in the euro zone and whether China should appreciate its yuan or not.

#### **Literature**

- International Macroeconomics, by Rob Feenstra and Alan Taylor (4th edition)

#### **Instructional Format**

PBL

#### **Assessment**

Final exam, paper and presentation

## VSS2205 Game Theory

### 2000 Social Science Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Arkadi Predtetchinski, General Economics, SBE, Maastricht University

Contact: a.predtetchinski@maastrichtuniversity.nl

#### Pre-requisites

You must be comfortable with mathematical thinking and rigorous arguments. We will be using basic ideas from probability theory (such as probability distributions, expectations) and some very light calculus.

#### Recommendations

It is strongly recommended, though not required, that you take any of the following courses before taking Game Theory: Principles of Economics (VSS1202), Intermediate Microeconomics (VSS2202), Statistics 1 (VSC1301), Calculus (VSC2302), Operations Management (VSC2301), or any other available courses in mathematics, statistics, or economics.

#### Objectives

- To become familiar with basic concepts in game theory, including strategic and extensive form games, pure and mixed strategy, dominance, Nash equilibrium, and backward induction.

#### Description of the course

Game theory is a study of interactive decision making using mathematical models. It focuses on situations involving several decision makers (called players) with different goals, in which the decision taken by each player affects the outcome for all the players. Game theory is used in economics, political science, computer science, logic, engineering, and biology. This course introduces basic concepts and tools of game theory. These include strategic and extensive form games, pure and mixed strategy, dominance, Nash equilibrium, and backward induction.

#### Literature

Joel Watson (2013). Strategy: An Introduction To Game Theory. Third Edition, W.W.Norton & Company. (compulsory) Martin J Osborne (2012): Introduction to Game Theory. Oxford University Press. (recommended).

#### Instructional Format

Lectures and tutorial meetings

#### Assessment

Written assignments, take-home exam

## VSS2301 Entrepreneurship

### 2000 Social Science Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Martin Carree, Organisation and Strategy, SBE, Maastricht University

Contact: m.carree@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

VSS1101 Introduction to Psychology or VSS1201 Introduction to Business Administration

#### Objectives

- You are able to explain and illustrate the unique qualities of the entrepreneurial process.
- You are able to explain and illustrate the unique qualities of entrepreneurs.
- You are able to explain how entrepreneurial opportunities are discovered and created.
- You are able to explain how entrepreneurs select their opportunities.
- You are able to explain how entrepreneurs link value creation to value appropriation.

#### Description of the course

In this course you will be introduced to some of the key insights on entrepreneurship that academics in the social sciences have produced. You will search the literature to unravel what drives entrepreneurs and the entrepreneurial process. We will focus on new venture gestation: the initial stages of the process that may result in a new company to emerge. Throughout the course you will explore how entrepreneurs not only rely on generic business management principles, but also how they cope with the uncertainty, risk, scarcity of time, capital and other resources that is inherent to all entrepreneurial venturing. Perhaps you will conclude that many entrepreneurs are in fact not really good managers (good entrepreneurs will compensate for this by hiring better managers). We start the course by explore the process dynamics of entrepreneurial activity and the importance of entrepreneurship for the society/economy. We then will explore the origins of entrepreneurial opportunity, review how entrepreneurs screen and develop the opportunities that they discover, and you will unravel how entrepreneurs seek to appropriate the returns from their enterprising behaviour. You will learn that entrepreneurship is quite distinctive from "management." It is also a phenomenon that is studied by many disciplines. Sociologist, psychologists, economists (working inside and outside business schools) have studied entrepreneurship, and their findings provide an important intellectual foundation to this course (and to entrepreneurial practise). Perhaps surprisingly, in most economic theory the entrepreneur is neglected. However, several economists have pointed to the increasingly important role of entrepreneurs in modern economies. You should really regard as an introduction to what we know about entrepreneurship. It is not a course in which you prepare the start of a new venture. Nevertheless, you may expect the course to inspire you to start exploring opportunities that you could pursue next to, or after your studies.

#### Literature

We provide a list of suggested scholarly articles that can be used in this course. All readings can be obtained free of charge through the UM library or from the authors' websites.

#### Instructional Format

Tutor Group sessions will help you explore the relevant literature and to learn how scholarly findings can help you to explain, understand and/or predict enterprising behaviour.

One or more case discussion sessions will help you to explore how (well established and more recent) scholarly insights can be used to inform entrepreneurial decision-making.

In addition to the case discussions and the tutorials, you will execute a biography project in which you (individually) read and reflect on a biography of a "true" entrepreneur.

### Assessment

Take home assignment plus biography essay plus group presentation plus participation. Biography essay: Each student is to read a biography of a "true" entrepreneur. In the essay you critically reflect on the entrepreneurship journey that is presented in the biography. You are expected to draw on the literature studied for the tutorials to put the journey into perspective.

### This module may be a prerequisite/recommended for:

Social and Environmental Entrepreneurship

## VSS2502 International Trade Law

### 2000 Social Science Course

5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Denise Prévost, International and European Law, Law, Maastricht University

Contact: denise.prevost@maastrichtuniversity.nl

#### Pre-requisites

- ✓ VSS1501 Introduction to Law

#### Recommendations

None

#### Objectives

- To provide students with an understanding of the WTO and its basic legal framework.
- To acquaint students with the application of WTO rules to concrete situations.
- To give students insight into the practical implications of WTO rules for the ability of Member governments to pursue their societal policy objectives.

#### Description of the course

The recent revival of (economic) nationalism in various parts of the world, including in some of the traditional pillars of trade liberalization, is a wake-up call to re-examine the multilateral trading system, embodied in the World Trade Organization (WTO). Fears that trade liberalisation limits States' ability to act to protect jobs and address other issues of societal concern (eg food safety, environmental protection) have led to a backlash against the WTO. At the same time, smaller groups of countries are pursuing deeper levels of trade liberalisation through negotiating trade agreements outside the WTO, such as the recently concluded CETA, and on-going TPP and TTIP negotiations. To grasp the context – and content - of these developments, understanding the law and policy of the WTO is indispensable. This introductory course on international trade law deals with main institutional and substantive rules of the World Trade Organization (WTO). The course is built around a number of true-to-life international trade problems presented in the form of case studies. The course addresses six themes. It starts by examining the phenomenon of economic globalization and, the arguments for and against free trade, as well as the role of law in international economic and trade relations. Secondly, it looks at the history, objectives, structure, functions, decision-making and membership of the WTO. Thirdly, the WTO's unique system for the resolution of trade disputes is discussed. Fourthly, the principles of non- discrimination in WTO law (namely the obligations of most-favoured-nation treatment and national treatment) are examined. Fifthly, the WTO rules on market access, dealing with tariff barriers and non-tariff barriers to trade in goods and services are addressed. Finally, the provisions of WTO law that aim to balance trade liberalization with other societal values (such as health, environment, development and regional integration) by means of exceptions to WTO obligations are discussed.

#### Literature

- Van den Bossche, P & Prévost, D. *Essentials of WTO Law*, (Cambridge University Press, 2016)
- WTO, *The Legal Texts - The Results of the Uruguay Round of Multilateral Trade Negotiations* (Cambridge University Press, 1999, reprinted 2007). The relevant WTO legal texts can also be found on the WTO website and printouts may be used.
- Original research articles will be prescribed to supplement the text book where necessary.

### **Instructional Format**

The course consists of lectures and two mandatory tutorial meetings per week. The lectures introduce selected topics covered by the course. The tutorial meetings are dedicated to detailed discussion of case studies that address fictional trade problems focusing on the relevant topic of the week, and are prepared by students beforehand in writing.

### **Assessment**

Exercise papers submitted during the course and a final written exam with open questions.

## VSS2701 Culture Politics and Society

### 2000 Social Science Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Jo Wachelder, History, FASoS, Maastricht University

Contact: jo.wachelder@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

This course acquaints you with topical cultural and societal theories, addressing challenges in current politics and economics. Transformations in production and consumption will be recurring issues, combining historical with contemporary situations, connecting the global with the local.

#### Description of the course

The course aims to explore the triangle of culture, politics and society via an historical and systematic analysis of consumption. This requires taking insights from history, sociology, economics, political science, philosophy, law and cultural studies on board. Consumption, more specifically the consumption of food, serves as the course's strategic case into the broad topic of societal change. Food is a necessity throughout history. Consumption is a significant feature of modern, capitalist societies. Via global trade and taxation, consumption is connected to both politics and legal regulation. Regulation, however, entails more aspects; think, for instance, of quality control. Culture comes in, among others, via different consumption patterns, which can be influenced by tradition, locality, knowledge or artistic representations. This interdisciplinary course integrates the knowledge of historians, sociologists, economists, political scientists, anthropologists and philosophers. It aims to increase understanding societies, in their current socio-political and cultural settings. Participating in this course will not only enrich your knowledge about consumption, but also extend your competences in dealing with and combining different disciplines.

#### Literature

TBA

#### Instructional Format

PBL

#### Assessment

Mid-term research presentation and final paper



## VSS3101 Performance Psychology in Sports and Business

### 3000 Social Science Course

5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

#### Pre-requisites

One psychology course at the bachelor level or in possession of a waiver (also see recommended).

#### Recommendations

If you want to be eligible for a waiver (so exemption from prerequisite), you should be highly motivated to follow this course and willing to put in some extra effort.

#### Objectives

- You acquire an insight into how psychological concepts, ideas and theories relate to performance
- You enhance your understanding into how psychological knowledge is used to enhance individual performance.
- You have been provided the opportunity to think about how the studied concepts etc. can be translated into 'real-life' situations in a performance field of their interest.

#### Description of the course

"Success is a journey, not a destination" (Arthur Ashe)

In this course students increase their insight on how people increase their mental toughness and overcome problems that impede them from performing at their best. They will become acquainted with some of the psychological processes and skills that are associated with people's ability to tap into their potential. Specific topics covered will focus on psychological factors and skills on the individual level. Topics studied will include mental imagery, focusing, confidence, coping with anxiety and setbacks, and the psychology behind the use of performance enhancing drugs. While most of the examples in the course manual to illustrate the concepts and trigger discussion come from the sport or business field, there is ample of room in the course to apply the gathered knowledge to other areas requiring people to perform (e.g. rehabilitation/ patients; emergency careers (such as first-aid doctors, fire fighters), education etc...

#### Literature

- What Business Can Learn From Sport Psychology: Ten Lessons for Peak Professional Performance - Martin Turner, Jamie Barker - ISBN 9781909125919
- Murphy, S. (2012). The Oxford Handbook of Sport and Performance Psychology. Oxford, UK: Oxford University Press

#### Instructional Format

Tutorial meetings, lectures and small (2 people) group work.

#### Assessment

- Format-free e-documentary
- Performance – a personal reflection

## VSS3102 Taste

### 3000 Social Science Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Remco Havermans, Clinical Psychological Science, FPN, Maastricht University

Contact: r.havermans@maastrichtuniversity.nl

#### Pre-requisites

- ✓ VSS2101 Psychology of Eating

#### Recommendations

VSS1101 Introduction to Psychology

#### Objectives

- You can name and identify anatomical structures and their functions regarding taste and smell perception.
- You can describe and explain the causes and consequences of taste and smell dysfunction.
- You can understand and apply techniques measuring how well anyone can taste or smell.
- You can explain how and why certain environmental cues influence flavour perception.
- You can reflect on how sight, touch, and hearing contribute to one's overall experience of flavour.
- You can argue and explain how learning and memory determine the development of flavour likes and dislikes.

#### Description of the course

This course covers the latest insights in the psychology of the sense of taste. Through problem-based learning tasks and portfolio workshops, we examine the sense of taste and how it relates to food selection and intake. Various topics will be addressed, such as the importance of integrated gustation and olfaction in taste perception, the dynamics of taste acuity, the consequences of taste changes, taste disorders and their impact on psychological well-being, and the role of memory and context in taste perception.

#### Literature

No compulsory literature

#### Instructional Format

Lectures and tutorial meetings

#### Assessment

A portfolio containing evidence of mastering the learning objectives (including a reflection on that evidence and the learning process), and a midterm written assignment reflecting on laboratory exercises in sensory evaluation (i.e., measuring the sense of smell and taste).

## **VSS3201 Production Planning and Management**

*3000 Social Science Course*

5 ECTS, Spring Semester, Period 5

### **Course Coordinator**

Stan van Hoesel, Quantitative Economics, SBE, Maastricht University

Contact: s.vanhoesel@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ VSC2301 Operations Management

### **Recommendations**

None

### **Objectives**

In-depth treatment of capacity planning problems on all levels. Our focus will be on introducing quantitative techniques for solving the optimization problems arising there, such as (Integer) linear programming, simulation, and queueing theory.

### **Description of the course**

Production planning and control is essential for all types of production methods. There are three phases for production planning and control: Pre-planning, planning and control. The pre-planning phase consists of product development, sales forecasting, facility layout, etc. The planning phase is concerned with allocation of all kinds of resources such as employees, materials and production capacity and routing and scheduling. The control phase consists of follow up, inspecting and evaluating. During this course we investigate the current approaches for effective management of production planning and control for different types of production methods. Topics that will be discussed include operations management, lean manufacturing, forecasting methods, supply chain management practices, scheduling and plant facilities layout.

### **Literature**

Operations Management, Stevenson edition 12E, ISBN13: 978-0-0771-6952-7, ISBN10: 0-0771-6952-2

### **Instructional Format**

PBL and case studies

### **Assessment**

Cases are graded, and the average of these grades will determine the end grade.

## VSS3202 Consumer Behaviour

### 3000 Social Science Course

5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Jona Linde, Economics (AE1), SBE, Maastricht University

Contact: j.linde@maastrichtuniversity.nl

#### Pre-requisites

- ✓ VSS1202 Principles of Economics or VSS2202 Intermediate Microeconomics

#### Recommendations

None

#### Objectives

- Learn to use theories from (behavioural) economics, marketing and psychology to understand and predict people's choices
- Understand how companies and governments can use these theories to reach their desired goals
- Become acquainted with empirical methods used to identify the behaviour and preferences of consumers

#### Description of the course

In this course we explore how people make decisions and how companies and governments use that information. We will explore, among other things, how monopolists can exploit their monopoly power, how consumers deal with decision which have consequences over time, and how we can stimulate ethical consumption. After the course you can explain, why are there so many brands of toothpaste, why cell phone plans are so complicated, why you are obliged to buy medical insurance, why people say they will buy Fairtrade products, but don't, and more. In addition to theories and empirical findings we will also discuss the empirical methods used to investigate these questions.

#### Literature

No book, papers will be assigned.

#### Instructional Format

Lectures and tutorials

#### Assessment

Participation including presentations, weekly assignments, and a final paper.

## VSS3301 Social and Environmental Entrepreneurship

### 3000 Social Science Course

5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Jarrod Ormiston, Center for Entrepreneurship, SBE, Maastricht University

Contact: j.ormiston@maastrichtuniversity.nl

#### Pre-requisites

At least one of the following courses:

- ✓ VSS1201 Introduction to Business Administration
- ✓ VSC1501 Sustainable Development
- ✓ VSS2301 Entrepreneurship

#### Recommendations

Students should be in at least their third semester to take this course

#### Objectives

On the successful completion of this course you should be able to:

- Critically reflect on social and sustainable entrepreneurship theory and practice
- Identify and evaluate social and sustainable entrepreneurship opportunities
- Develop a strategy for a social/ sustainable enterprise
- Conduct primary research and analyse primary and secondary data in the field of social and sustainable entrepreneurship
- Prepare and present documentation to pitch a novel enterprise idea
- Learn to cope with the chaos and complexity of doing social and sustainable entrepreneurship in the real world.

#### Description of the course

Interest in the concept of social and sustainable entrepreneurship has been sparked over the last two decades due to frustration with inefficient, ineffective and failed action of government and philanthropic bodies, as well as the socially destructive behaviour of many businesses. An explicit and central social/sustainable mission, innovation, creativity and a strong market orientation are the distinguishing features of social and sustainable entrepreneurship. Social and sustainable entrepreneurs are committed to furthering a social and/or sustainable mission, and rank social, environmental or cultural impact on a par with, or above, profit. At the intersection of business, government and not-for-profit organisations, these social and sustainable entrepreneurs are now visible and having an impact on a global scale.

This course will provide you the opportunity to learn how you can apply your knowledge and skills to address complex sustainability problems. This course is structured around experiential problem-based learning, providing you the opportunity to synthesise theory and practice as you develop an idea for your own social/sustainable enterprises. Topics will include: critically reviewing concepts; user centred-design of social and sustainable enterprises; frameworks for understanding and strategizing; understanding and reporting social and environmental impact; and cross-sector collaboration.

#### Literature

eReader with papers & Harvard Business cases (You need to pay for your cases, approx. €15).

#### Instructional Format

Lectures and tutorial meetings

### Assessment

Pitches (presentations), final paper, facilitation and participation

## **VSS3501 European Food Law**

*3000 Social Science Course*

5 ECTS, Fall Semester, Period 1

### **Course Coordinator**

Ellen Vos, International and European Law, Law, Maastricht University

Contact: e.vos@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ At least two courses in the Social Sciences and/or VSS1501 Introduction to Law

### **Recommendations**

None

### **Objectives**

- To gain insight in basic concepts of European food law
- To gain understanding of specific food regulations and its application

### **Description of the course**

This course addresses the structure and content of food law in the European Union as well as its relationships with national and global food legislation. After studying the basic principles of the General Food Law, various specific topics and laws are addressed concerning food hygiene & safety, novel foods, labelling and health claims. The course will also touch upon enforcement of food law and students will gain insights into legislation to understand the application of food law in the food industry.

### **Literature**

TBA

### **Instructional Format**

Lectures and tutorial meetings

### **Assessment**

Written paper and a written final exam





## Skills Trainings

## VSK1001 Introduction to Academic Skills

### 1000 Core Skills Training

2,5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Iris Burks, University College Venlo, FHS, Maastricht University

Contact: iris.burks@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

Students who successfully complete this course will be able to:

- Define a thesis statement
- Search for literature
- Read & take notes
- Evaluate and create an argument
- Conduct appropriate referencing and prevent plagiarism, falsification and fraud
- Create a draft
- Provide and use Feedback
- Manage time
- Prepare for exams
- Adopt appropriate and effective study strategies

#### Description of the course

Although your start at an academic programme is in many ways a continuation of your educational career, we know that the transition to university may provide you with unique challenges. This skills training aims to equip you with the basic tools which will help you succeed in University and begins where the Introduction Period ended. While writing an academic essay, important topics in academia are discussed; defining a thesis statement, searching for literature, reading & note taking, evaluating and creating an argument, referencing and plagiarism, drafting, revising. Additionally, you will learn to evaluate and plan the use of your time effectively and to prepare yourself for exams. We will use various educational formats including lectures, workshops, in class discussions and peer-feedback. You put your acquired knowledge and skills immediately into practice by the writing of an academic essay.

#### Literature

Required: Fowler, H. R., & Aaron, J. E. (2015). The Little Brown Handbook (13th ed.). New York: Pearson Longman. (Earlier editions can also be used). Students are recommended to purchase this book, and it will prove useful throughout your studies.

Additional: Additional Literature may be found in the reference list.

#### Instructional Format

Computer training sessions, workshops, lectures and tutorial group meetings, during which students will do small group exercises.

#### Assessment

Several written assignments.

## VSK1002 Research Methods I

### 1000 Core Skills Training

2,5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Simone Eussen, Department of Epidemiology, FHML, Maastricht University

Contact: [simone.eussen@maastrichtuniversity.nl](mailto:simone.eussen@maastrichtuniversity.nl)

#### Pre-requisites

- ✓ None

#### Recommendations

None

#### Objectives

- To obtain insight in methods to conduct real world research.

#### Description of the course

Students will be introduced in research methodology by lectures, assignments and self-study. Students will learn why theoretical backgrounds are important to develop hypotheses that can be tested, will learn how to select a suitable study population, how to define and choose appropriate outcome measures fitting the hypotheses and what this means for internal and external validity. In order to enhance learning, students need to apply this by writing the introduction and part of the research methods of a study proposal on one of the topics provided by the staff and to peer review each others work.

#### Literature

- Kumar R. Research Methodology – a step-by-step guide for beginners. ISBN9781446269978
- Cobo E (2011). Effect of using reporting guidelines during peer review on quality of final manuscripts submitted to a biomedical journal: masked randomised trial. BMJ 2011;343
- Driessen E, van Tartwijk J, Dornan T (2008). The self-critical doctor: helping students become more reflective. BMJ 2008;336;827-830
- Shute VJ (2008). Focus on Formative Feedback. Review of Educational Research Vol. 78, No. 1, pp. 153–189
- Ware M (2008). Peer review: benefits, perceptions and alternatives, Publishing Researching Consortium
- [www.publishingresearch.net/documents/PRCsummary4Warefinal.pdf](http://www.publishingresearch.net/documents/PRCsummary4Warefinal.pdf)
- Additional literature will be provided during the course
- Material is available in the Reading Room, UM-Library, as E-reader or as Online Sources.

#### Instructional Format

Lectures and practical skills trainings

#### Assessment

Mid-term writing assignment and oral presentation/discussion

#### This module may be a prerequisite/recommended for:

PEERS

## VSK1000 The Applied Researcher I

### 1000 Core Project

2,5 ECTS, Spring Semester, Period 4

#### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

#### Pre-requisites

- ✓ None

#### Recommendations

None

#### Objectives

At the end of this skills-training...

- Students have improved their ability to identify and select relevant (scientific) sources which they can use to support their research question.
- Students have become aware of the importance of analysing a real-life problem sufficiently in order to formulate an adequate research question and hypotheses.
- Students have learned to design and plan a realistic research project and are able to convey the importance and feasibility of the research project in a written research proposal.
- Students have improved relevant soft skills (planning, communication, team working).

#### Description of the course

The Applied Researcher I is the first part of a three period research project, in which students will work in small groups to research a problem. The problems provided challenge students to study an issue that is still not fully understood and the answer to the problem has applied implications. However, the problems differ with respect to their study focus (e.g. Food Innovation, Psychology, ...). Before the start of the project students are given the opportunity to designate their preference for a specific problem that is provided by a UM researcher.

In this project period the focus will lie on analyzing the problem and on coming up with a feasible research plan that sets the foundation for the data collection phase (The Applied Researcher II) and the analysis-writing up results phase (The Applied Researcher III).

#### Literature

Students will be provided with a small number of content literature that is related to their research focus. In addition, some general literature resources are recommended. However, for the most part students are expected to search for and identify credible and relevant sources by themselves.

#### Instructional Format

In this course 4 instructional formats are used.

1. Research mentor meetings, in which a group discusses their research progress, questions etc. with the assigned research mentor
2. Peer group meetings, in which 2 representatives of each group meet once a week to discuss any general course or research related issues.
3. Lecture(s)
4. Workshop(s)

**Assessment**

Written fact sheet (individual assignment) and research proposal (group assignment).

**This module may be a prerequisite/recommended for:**

PEERS

## VSK1004 The Applied Researcher II

### 1000 Core Skills Training

2,5 ECTS, Spring Semester, Period 5

#### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

#### Pre-requisites

- ✓ VSK100 The Applied Researcher I

#### Recommendations

None

#### Objectives

At the end of this skills-training...

- students have acquired experience in the collection and recording of data, such as implementing a measurement method and statistical package skills.
- students have become acquainted with the skills needed to analyze research data.

#### Description of the course

The Applied Researcher II is the second part of a three period research project, in which students will work in small groups to research a problem. Students continue working on the project that they started in the Applied Researcher I. In the current period the focus will lie on gathering the data needed in order to answer the research question(s) formulated and writing the introduction of the research article.

#### Literature

No essential reading list is provided. Students are expected to search for and identify credible and relevant sources by themselves.

#### Instructional Format

In this course 4 instructional formats are used.

1. Research mentor meetings, in which a group discusses their research progress, questions etc. with their research mentor
2. A peer group meeting, which needs to be attended by 2 representatives of each group.
3. Lecture(s)
4. Workshop(s)

#### Assessment

Written study protocol (group assignment)

Written reflection report (individual assignment)

#### This module may be a prerequisite/recommended for:

The Applied Researcher III

VSK2000

## VSK2000 Language Training: German professional proficiency at B2

### 2000 Skills Training

2,5 ECTS, Fall Semester, Period 2

#### Course Coordinator

This course is taught by the language centre, but may be used towards the UCV curriculum

#### Pre-requisites

Prerequisites are a previous German language module or a compulsory intake interview.

#### Recommendations

A good knowledge of German is requested

#### Objectives

- improve your chances for finding employment
- create opportunities in Germany, your own country and elsewhere

#### Description of the course

*Englisch ein Muss, Deutsch ist ein Plus.*

Employers consider language skills as one of the most important skills for future graduates. There is an increasing demand in border regions for bi-lingual professionals for developing border trade.

Did you know that:

- German is the most widely spoken language in Europe
- Germany has the 3rd strongest economy and is the #1 export nation in the world
- Germany is the third largest contributor to research and development
- Germany is by far the Netherlands' most important trade partner

In short, mastering German creates business opportunities in Germany, your own country and elsewhere. It helps improve your performance for an employer with international business connections.

#### Literature

This module makes use of a book

#### Instructional Format

Group lessons

#### Assessment

Several moments of assessment, including an exam

## VSK2001 Argumentation

### 2000 Social Science Skills Training

2,5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Wolfgang Giernalczyk, University College Maastricht, FHS, Maastricht University

Contact: wolfgang.giernalczyk@maastrichtuniversity.nl

#### Pre-requisites

Students who take the course need to have written at least one academic paper.

#### Recommendations

None

#### Objectives

This skills training provides a general introduction to the analysis of arguments. At the end of the skills training students should be able to:

- Identify and carve out the underlying structures and logical connections of written and verbal arguments.
- Translate these structures into a visual representation by drawing patterns of these arguments.
- Evaluate arguments with regards to their structure and content by applying Govier's "ARG method" (this entails the ability to identify fallacies).
- Build and present own arguments in a structured and cogent fashion, taking the evaluative criteria of the "ARG method" into account.
- Improve their approach to structure papers, exam answers and presentations.

#### Description of the course

In this skills training we work from two fundamental assumptions regarding arguments:

1. They have a specific structure, which can be made visible and evaluated.
2. The quality of an argument depends on its structure as much as it depends on its content.

In order to "get a grip" on arguments the course is divided into four parts that introduce information and exercises to gradually develop the skill of argument analysis. The first part will serve as an introduction discussing the general characteristics and typology of arguments. Furthermore, in this part students learn how arguments can be standardized and how argumentative structures can be visualized by drawing patterns. The core question this part of the course seeks to answer is: What is the structure of arguments and how can one reveal this structure? This part of the course will also contain an introductory lecture, entitled "Standardizing Arguments".

In part two an informal but systematic method for evaluating the quality of arguments, the ARG-method, is introduced. By assessing the acceptability of premises, the relevance of premises with regards to the conclusion they are supposed to support, and the logical connection between premises and the following conclusion, the ARG-method enables us to examine both structure and content of an argument. During this part of the course an introduction to bad arguments, so-called fallacies, is provided as well. A Lecture, "Evaluating Arguments", will accompany this part of the course.

In the third part the knowledge and skills provided in the first two parts will be applied to complete texts, seeking to isolate the arguments they present in a systematic way and evaluate whether or not they are good arguments.

Part four moves beyond the analysis of already existing arguments. In this part, standardization and patterns of arguments, as well as the ARG-method, will be used to construct arguments. Furthermore it will be practiced how the skills learned throughout the course can be applied for the purpose of writing academic papers.



**Note:** Students considering enrolling for the skill trainings in argumentation should be aware that the course will not focus on rhetoric and debating skills (although it can be assumed that the analytical skills acquired in this course will be helpful for debates).

### Literature

E-reader with various articles and chapters on argument analysis and logic.

### Instructional Format

Assignment-based discussion, supplemented by lectures.

### Assessment

A midterm assignment asking students to conduct an analysis of one of their own papers using the techniques of argument analysis and a final assignment in which students compose an argument of their own.

**This module may be a prerequisite/recommended for:**

Think Tank

## VSK2002 Lab Skills 2

### *2000 (Life) Science Skills Training*

2,5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Alvaro Garcia Fuentes, University College Venlo, FHS, Maastricht University

Contact: a.garciafuentes@maastrichtuniversity.nl

#### Pre-requisites

- ✓ VPR1004 Research Methods II: Lab Skills

#### Recommendations

None

#### Objectives

- To produce methodologies that answer the different research questions by creating a protocol and plan of the activities to develop in the lab.
- To conduct laboratory experiments with precision and professionalism demonstrated through the register of procedures in the lab journal.
- To interpret and evaluate results obtained from the experiments by the elaboration of reports at the end of the practical.
- To assess and conclude over experiment's results to solve a given problem and outlining the conclusions in reports at the end of the practical.

#### Description of the course

Lab Skills 2 is a course that originates scientific curiosity in the student. It builds on top of different science courses ivsc1501

in the UCV curriculum and stimulate research questions on different topics. This creates an environment that gives the opportunity to develop different abilities and skills to handle laboratory equipment in a safe and precise manner. Accuracy, focus, and constant questioning will be part of this course to finally obtain solutions to different practical challenges presented during the different sessions.

#### Literature

This skills training does not require specific literature. You will need to look for your own sources.

#### Instructional format

Laboratory sessions.

#### Assessment

Lab Prelab preparation, lab journal control, and practical reports

## VSK2003 Lab Skills 3

### *2000 (Life) Science Skills Training*

2,5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Herman Popeijus, Human Biology, FHML, Maastricht University

Contact: h.popeijus@maastrichtuniversity.nl

#### Pre-requisites

- ✓ VPR1004 Research Methods II: Lab Skills or equivalent

#### Recommendations

Interest in biology and laboratory experiments

#### Objectives

- To give insight into the basics of biology experiments
- To obtain the ability to do the basic laboratorial calculations
- To provide basic skills in ELISA, Photo spectrometry, PCR and gel electrophoresis
- To provide the theory behind these techniques

#### Description of the course

The general aim of this course is to obtain knowledge about the molecular processes in cell signalling and control of gene expression. Topics include intracellular signalling pathways; chromatin structure and remodelling and finally genetic modifications.

#### Literature

Practical Skills In Biomolecular Sciences, ISBN-13: 978-0132391153

#### Instructional format

Laboratorial meetings.

#### Assessment

Preparation (20%); Labjournal (10%); 1 short practical reports (10%); basic laboratorial calculations (40%); MCQ and open ended questions (20%).

## VSK2004 Academic Writing

### 2000 Social Science Skills Training

2,5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Peter Wilms van Kersbergen, Language Centre, UB, Maastricht University

Contact: p.wilmsvankersbergen@maastrichtuniversity.nl

#### Pre-requisites

✓ None

#### Recommendations

None

#### Objectives

During this advanced writing course, students will

- Deepen academic writing skills appropriate for academic exchanges: understanding how to report on approaches, conduct a short literature review and report data
- Learn to use the analysis of the data to support a scientific hypothesis, as well as correct use of grammar and spelling
- Learn relevant paraphrasing and summarizing techniques
- and practice how to cite properly together with how to write proper references and acquiring working knowledge of Endnote and its use as a reference management tool

#### Description of the course

This course is designed to assist students in polishing their writing skills. You will more than likely have already written a number of papers for various courses before attending this course; therefore, this course will not review the basics of writing or grammar. Rather, this skill's training course will focus on advanced levels of writing to help students look deeper into style while writing in English, and re-visit successful means of argumentation in an academic context.

#### Literature

Recommended: Fowler, H. R., & Aaron, J. E. (2004). The Little, Brown Handbook (9th ed, or higher). New York: PearLongman. Any other course hand-outs or materials will be provided via Student Portal

#### Instructional format

Lectures (2) and tutorial (4) meetings.

#### Assessment

A draft (30 %) as well as a final (70 %) writing assignment.

## VSK2005 Presentation Skills

### 2000 Social Science Skills Training

2,5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Alie Boer, de, University College Venlo, FHS, Maastricht University

Contact: a.deboer@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

Students must be familiar with PowerPoint or other types of slideware, such as Prezi.

#### Objectives

Students...

- Can structure a clear, concise and persuasive message.
- Will explore ways to engage the audience and make your message stick.
- Will be able to convey complex information clearly through visual and oral presentation skills;
- Will learn how to handle nerves and tension and increase your confidence as a presenter.

#### Description of the course

Students will study and practice different aspects of a presentation. All students will give a number of presentations and discuss their outlines, content and the final delivery with their fellow group members. First, students will give a presentation on a set topic. Then students can decide on their own topics to present, usually within their field of interest. The purpose is to be able to convincingly convey information about a topic that you are knowledgeable about to other people. Besides giving presentations, an important aspect of this training is giving and receiving constructive feedback. Both the trainer and your fellow students will provide you with feedback and you will be asked to provide feedback several times. Students are expected to use the feedback to improve their skills. The training will help you to prepare future presentations, either at UCV or as part of a future job or master programme.

#### Literature

E-reader

#### Instructional format

Tutorial group meetings

#### Assessment

Graded presentations, written feedback and class participation.

## VSK2006 Clinical Lab Skills

### 2000 (Life) Science Skills Training

2,5 ECTS, Fall Semester, Period 1

#### Course Coordinator

Khrystyna Semen, University College Venlo, FHS, Maastricht University

Contact: k.semen@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

None

#### Objectives

- To apply main principles of Good Clinical Practice in clinical research.
- To perform and assess anthropometric and basic cardiorespiratory measurements, heart rate variability, electrocardiogram and pulmonary function testing.
- To assess and conclude over the design of a clinical trials.

#### Description of the course

Clinical Lab Skills focuses on the basic techniques used in clinical research to assess functions of the organ and systems of a human body. You will learn how to perform anthropometric and cardiovascular assessment, lung function testing, electrocardiography and heart rate variability and how to interpret results of these studies. Special emphasis will be laid on the main principles of design of the clinical trials and application of the Good Clinical Practice concept in the studies involving human participants. At the end of the training you will improve your abilities and skills to perform clinical research.

#### Literature

No compulsory literature will be requested for this course.

#### Instructional format

Interactive lectures, workgroup sessions and homework assignments

#### Assessment

During the course the students will be asked to write the critical overview on the design of the clinical trial. As the second assessment the students will be required to demonstrate how certain clinical skills are operated and to characterized how obtained variables can be used the clinical research. The final grade will be a weighed combination of both grades.

## **VSK2007 Risk Communication & Crisis Management**

*2000 (Life) Science, Social Science Skills Training*

2,5 ECTS, Spring Semester, Period 4

### **Course Coordinator**

Misha Vrolijk, University College Venlo, FHS, Maastricht University

Contact: m.vrolijk@maastrichtuniversity.nl

### **Pre-requisites**

✓ None

### **Recommendations**

None

### **Objectives**

During this skills training, students will learn to approach risk communication from different disciplines:

1. risk assessment
2. risk psychology
3. sociology

Also to practice risk communication taken into account personal and social perception and acceptance and background, different opinions about risk issues.

### **Description of the course**

Most scientific research about risk is based on the likelihood that something will happen and the impact what this will have: on humans, animals, the environment or climate for example. Think of a foodborne illness, the development of AI-robots that are smarter than ourselves, or the plastic soup in our oceans. But risk = chance x effect is not the whole message. Risks are rooted in society and are therefore closely connected with the life and especially the values and perceptions of the society-members, on which they base their risk-acceptance.

Scientific risk assessment can be perceived as an equivalent of 'fake' messages about risk issues on the internet or social media. Who can be trusted and who absolutely not, who can do what to take control of the risk. These are all elements of the course 'the strategy of risk communication'. Students will learn about the six building blocks of the strategy, which are rooted in behavioural economics, sociology, risk-ontology and psychology. Together they give insight in that a risk is more than probability/severity, knowledge that is necessary to connect the scientific outcomes to the society you are working for.

### **Literature**

TBA

### **Instructional format**

Six meetings: 30 minutes theoretical considerations and background, exercise training based on actual cases.

Total duration each week: two hours.

### **Assessment**

Development of a risk communication strategy based on two actual cases

## VSK2008 Visualization and Data Storytelling

*2000 (Life) Science, Social Science Skills Training*

2,5 ECTS, Spring Semester, Period 5

### Course Coordinator

TBA, University College Venlo, FHS, Maastricht University

Contact: campusvenlo-advising@maastrichtuniversity.nl

### Pre-requisites

✓ None

### Recommendations

None

### Objectives

- Students understand what is meant by data storytelling.
- Students have become acquainted with differences visualization methods/techniques that are used in data storytelling.
- Students have learned to think critically about how to combine data, visuals and narrative into an effective visual representation.
- Students have learned how to develop an infographic.

### Description of the course

Google's Chief Economist Dr. Hal R. Varian stated in 2009 "the ability to take data—to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it—that's going to be a hugely important skill in the next decades." This course will focus on the last steps in this process, namely how to give numbers a clear and convincing visual voice; how to share understanding visually. Visuals are processed 60,000 times faster than words alone and remembered by 80% of the people (contrary to 20% for reading). Data storytelling is a structured approach for communicating data insights, and it involves a combination of three key elements: data, visuals, and narrative. In this skills training students will get an introduction into how one combines the right visuals and narrative with the right data, as this drives change in real life. People hear statistics, but they feel stories. Great data storytelling allows someone who's never heard of data science to understand what information one wants to transmit.

### Literature

TBA

### Instructional format

TBA

### Assessment

Develop an infographic + weekly case assignments



## **VSK3001 Preparing Conference I**

*3000 Social Science Skills Training*

2,5 ECTS, Spring Semester, Period 4

### **Course Coordinator**

Geert Rutten, University College Venlo, FHS, Maastricht University

Contact: geert-rutten@maastrichtuniversity.nl

**See VPR3001 Conference**

## **VSK3002 Preparing Conference II**

*3000 Social Science Skills Training*

2,5 ECTS, Spring Semester, Period 5

### **Course Coordinator**

Geert Rutten, University College Venlo, FHS, Maastricht University

Contact: geert.rutten@maastrichtuniversity.nl

### **Pre-requisites**

- ✓ VSK3001 Preparing Conference I

**See VPR3001 Conference**

## **VSK3101 PEERS – Undergraduate Research I**

*3000 (Life) Science Project*

5 ECTS, Spring Semester, Period 4

### **Course Coordinator**

Aalt Bast, University College Venlo, FHS, Maastricht University

Contact: a.bast@maastrichtuniversity.nl

### **Pre-requisites**

None

**See VPR3103 PEERS**

## **VSK3102 PEERS – Undergraduate Research II**

*3000 (Life) Science Project*

5 ECTS, Spring Semester, 5

### **Course Coordinator**

Aalt Bast, University College Venlo, FHS, Maastricht University

Contact: a.bast@maastrichtuniversity.nl

### **Pre-requisites**

VSK3101 PEERS - Undergraduate Research I

**See VPR3103 PEERS**

## VSK3003 Advanced Epidemiology of Food

### 3000 Core Skills Training

2,5 ECTS, Fall Semester, Period 2

#### Course Coordinator

Simone Eussen, Department of Epidemiology, FHML, Maastricht University

Contact: [simone.eussen@maastrichtuniversity.nl](mailto:simone.eussen@maastrichtuniversity.nl)

#### Pre-requisites

- ✓ VSK1002 Research Methods I
- ✓ VSC2201 Epidemiology of Food
- ✓ VSC1301 Statistics 1

#### Recommendations

None

#### Objectives

- To obtain knowledge in statistical analyses to conduct nutritional epidemiological research.

#### Description of the course

Students will be trained in epidemiological techniques to study the relation between diet and chronic disease. Students will apply different techniques relevant for different epidemiological study designs, including randomised controlled trials, case-control studies, cross-sectional studies, and prospective studies. Common topics in epidemiology such as confounding and effect modification will be addressed as well. In order to practice these techniques, students will use large, real-life datasets. In order to enhance learning, students need to write a report based on their own statistical analyses, and will present their results during oral presentations.

#### Literature

TBA

#### Instructional Format

Lectures and practical skills trainings

#### Assessment

Statistical and writing assignments, oral presentation/discussion



## Projects

## **VPR1003 Research Methods II: Applied Academics**

*1000 Core, Elective Project*

5 ECTS, Fall Semester, Period 3

### **Course Coordinator**

Christel Gool, van, Department of Epidemiology, FHML, Maastricht University

Contact: c.vangool@maastrichtuniversity.nl

### **Pre-requisites**

✓ None

### **Recommendations**

None

### **Objectives**

#### **1. Knowledge and insight on:**

The student

- is able to distinguish between various measures of frequency of health outcomes
- has basic knowledge of and insight into the principles of classifying health and disease outcomes
- is able to distinguish between the various types of health measurement scales and the relevant aspects of the quality of a health measurement scale
- is able to distinguish between various measures that quantify the strength of association between determinants and health outcomes
- is able to distinguish between various study designs in epidemiology
- is able to identify the major advantages and disadvantages of the different epidemiological study designs knows the difference between internal validity and external validity of epidemiological studies
- appreciates the potential threat of bias (confounding, information bias, selection bias) to the internal validity of an epidemiological study.
- appreciates the difference between confounding and effect modification (interaction)
- appreciates various design measures to prevent bias or to adjust for bias in observational research
- has knowledge and understanding of the principles of causality and causal reasoning, and be able to distinguish between various criteria that can be used to assess a causal relationship between exposure and health outcome.
- has basic knowledge of and insight into the main principles and procedures of diagnostic test (strategy) development and evaluation
- is able to distinguish between the various types of literature review and identify the advantages and disadvantages of these types of literature review
- is able to identify the subsequent steps of a systematic literature review.

#### **2. Application of knowledge and insight:**

The course participant is able to recognize and assess the general quality of an epidemiological study

### **Description of the course**

In this project we will build upon the expertise gathered in part I. Through lectures and tutorials we will explore in more detail research methods which can be used, decisions on when to use which research method and how to read and understand basic research material.



### Literature

- Webb, P., & Bain, C. (2010). Essential epidemiology: an introduction for students and health professionals. Cambridge University Press.
- More literature will be provided in the e-reader

### Instructional Format

Interactive lectures, workgroup sessions and homework assignments

### Assessment

Students need to critically reflect on the final assignments done in VSK1002. Additionally an open exam in which an article is critically reflected upon will be part of the examination. The final grade is a weighed combination of both grades.

**This module may be a prerequisite/recommended for:**

PEERS

## VPR1004 Research Methods II: Lab Skills

### 1000 Core Elective Project

5 ECTS, Fall Semester, Period 3

#### Course Coordinator

Alvaro Garcia Fuentes, University College Venlo, FHS, Maastricht University

Contact: a.garciafuentes@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

VSC1401 Introduction to Chemistry

#### Objectives

- To apply the safety and good laboratory practices in the development of scientific experiments across all the practical sessions.
- To use the laboratory equipment and materials with precision and efficiency.
- To conduct scientific laboratory experiments with accuracy and professionalism demonstrated through registration of procedures in the lab journal and writing of scientific reports.
- To assess and conclude over experiment's results to outline coherent conclusions.

#### Description of the course

Research Methods 2: Lab Skills (*a.k.a. Lab Skills 1*) is project course that focuses on conducting and reporting on scientific experiments. Students learn to use the lab in a safe manner and according to the Good Laboratory Practice (GLP) requirements, in order to answer their scientific research questions. You will become familiar with the accurate measurement of volumes and weights, making solutions, keep a journal and write your findings up in a report.

#### Literature

This skills training does not require specific literature. Some resources will be posted on Student Portal, but you will need to look for your own sources for your reports.

#### Instructional Format

Laboratory sessions.

#### Assessment

Prelab preparation, lab journal control, and practical reports

#### This module may be a prerequisite/recommended for:

Lab Skills 2, Lab Skills 3, PEERS

## VPR1002 The Applied Researcher III

### 1000 Core Project

5 ECTS, Spring Semester, Period 6

#### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

#### Pre-requisites

- ✓ VSK1000 The Applied Researcher I; VSK1004 The Applied Researcher II

#### Recommendations

None

#### Objectives

At the end of this project...

- Students have developed a basic ability to analyze collected research data and synthesize the results with the acquired content knowledge in order to draw reliable conclusions.
- Students have become aware of what constitutes an academic research article
- students have further developed abilities needed to successfully complete a research project (planning, writing, evaluating, researching).
- Students have become acquainted with presenting their research and answering critical questions.

#### Description of the course

The Applied Researcher III is the third and last part of a three period lasting research project, in which students will work in small groups to research one of three problems. Students continue working on the project that they started in the Applied Researcher I.

In this period the focus will lie on analyzing and interpreting the collected data, writing a research article and communicating the findings in writing. The outcome will be a research article that is of sufficient quality to be submitted to the UCV journal.

#### Literature

No essential reading list is provided. Students are expected to search for and identify credible and relevant sources by themselves.

#### Instructional Format

In this course 4 instructional formats are used.

1. Research mentor meetings, in which a group discusses their research progress, questions etc. with their research mentor
2. Peer group meetings, which need to be attended by 2 representatives of each group.
3. Lecture(s)
4. Workshop(s)

#### Assessment

Written research article (group assignment)

Written peer review 'Research article' (individual assignment)

Research poster presentation (group assignment).

## VPR2001 Writing a Research Proposal

2000 (Life) Science Project

5 ECTS, Fall Semester, Period 3

### Course Coordinator

Peter Wilms van Kersbergen, Language Centre, UB, Maastricht University

Contact: p.wilmsvankersbergen@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

VSK2004, Introduction to Academic writing and/or

VSK 2001 Argumentation

### Objectives

At the end of this project... :

1. Students are aware of the importance of analysing a real-life problem sufficiently in order to formulate an adequate research question and hypotheses in the context of an academic grant proposal;
2. Students will have practiced presenting their research focus and answering critical questions, both in writing and verbally;
3. Students will have developed abilities needed to successfully complete a research proposal (planning, writing, evaluating, presenting);
4. Students have improved relevant soft skills (planning, communication, as well as providing and processing peer feedback).

### Description of the course

You will learn to write a professional research proposal.

In the project context of applying for a research grant, the focus will lie on the process steps of writing a research proposal, and communicating a clear research focus, both in writing, as well as via a short personal proposal presentation (pitch).

The outcome will be a research proposal that could be submitted to an external Grants office, such as the UM Universiteitsfonds.

### Literature

No essential reading list is provided. Dependent on their topic of choice, students are expected to search for and identify credible and relevant sources by themselves, and arrive at a short list of required reading.

Recommended:

- Fowler, H. R., & Aaron, J. E. (2004). The Little, Brown Handbook (9th ed, or higher). New York: PearLongman.
- Kumar R. Research Methodology – a step-by-step guide for beginners. ISBN9781446269978

### Instructional Format

In this project 3 instructional formats are used.

1. One or more weekly mentor meetings, in which a group discusses their research progress, questions etc. with their research mentor
2. Lecture(s)
3. Final Workshop

### Assessment

Written research proposal (as individual assignment; 80 %) and

Final presentation (pitch, as individual assignment; 20 %) on the last day of the project

### This module may be a prerequisite/recommended for:

Think Tank

## VPR2002 Academic Debate

### 2000 Social Science Project

5 ECTS, Fall Semester, Period 3

#### Course Coordinator

Khrystyna Semen, University College Venlo, FHS, Maastricht University

Contact: k.semen@maastrichtuniversity.nl

#### Pre-requisites

- ✓ None

#### Recommendations

None

#### Objectives

- To equip students with essential debating and communication skills.
- To introduce students to the practice of speaking in a public setting.
- To become an expert on a topic of their choice (the debate topic).

#### Description of the course

Debating skills are an important component of academic life. In this 200 level-project, students will prepare, present and defend a position for an academic debate. There will be a “yes” (pro) and a “no” (con) position for each group’s particular theme. The topics that are available are central issues that have emerged out of a wide range of UCV courses from different concentrations taught during the academic year. Each topic group will have two teams, each arguing one side of the case. In this course you will work on your debating and communication skills. The emphasis lies on delivery and content. It is not only important to think about what you deliver, but also about how you deliver it. It is your job to persuade an audience as to the correctness of your position. In order to do this, you need a coherently structured, logically laid out set of arguments that you will present in a clear and self-assured way. Your task is to make the issue involved come alive.

#### Literature

Students will choose, read and use literature that is related to their debate topic. Some of the literature will be suggested by the tutor; however, most literature has to be found by the students themselves.

#### Instructional Format

Tutorial group meetings, a lecture/workshop on debate and debating skills, and a debate on the last day of the project.

#### Assessment

A position paper (individual grade) and a debate (group grade).

#### This module may be a prerequisite/recommended for:

Think Tank

## VPR2003 Science Communication Mini-Documentary

*2000 (Life) Science, Social Science Project*

5 ECTS, Spring Semester, Period 6

### Course Coordinator

TBA, University College Venlo, FHS, Maastricht University

Contact: campusvenlo-advising@maastrichtuniversity.nl

### Pre-requisites

- ✓ None

### Recommendations

None

### Objectives

- Students have a basic understanding of the theoretical underpinnings of making a documentary.
- Students have learned to combine experience/claims with scientific knowledge/research and incorporate the resulting knowledge into a mini-documentary.
- Students have learned to communicate knowledge critically, correctly and accessible to a broad audience through a mini-documentary.
- Students have learned the practical skills needed to develop a mini-documentary.

### Description of the course

According to director Beeban Kidron in her 2012 TED talk, films are the 20th century's most influential art form because they allow people to tell stories across national boundaries and languages. It is through film that people in today's connected and fast-changing world are increasingly introduced to values, struggles, innovations, and beliefs beyond their daily experience. Mini-documentaries are one type of way to visually share ones message/story. Documentaries form a practical way to communicate ones story and appeal to a broad audience. It is low-budget, allows non-fiction come to life and creates, if developed correctly, awareness. In this project, students work in small teams to create a mini-documentary on a specific topic. Next to being introduced to the theoretical underpinnings of the medium documentary, this project focuses on developing the skills needed to create a mini-documentary and combining these skills with the knowledge and research skills that students have acquired at UCV so far. The best mini-documentary will be presented at the UCV student conference.

### Literature

TBA

### Instructional Format

TBA

### Assessment

Development of a mini-documentary + one other assessment.

## VPR3001 Conference

### 3000 Social Science Project

5 ECTS, Spring Semester, Period 4 (VSK3001 Preparing Conference I), Period 5 (VSK3002 Preparing Conference II), Period 6 (VPR3001)

### Course Coordinator

Geert Rutten, University College Venlo, FHS, Maastricht University  
Contact: geert.rutten@maastrichtuniversity.nl

### Pre-requisites

- ✓ VSK3001 Preparing Conference I; VSK3002 Preparing Conference II

### Recommendations

The Conference project is preferably done during the second year (or the third year) of your study programme. VPR3001 is the actual execution of the UCV Liberal Arts and Sciences Conference. This Conference is organized during the preceding courses VSK3001, during which you learn skills in Project Work and develop the conference plan, and VSK3002 you proceed in the organization of the Conference and develop your workshop.

### Objectives

Conference is a semester communication programme carrying 10 ECTS. Conference encompasses two Skills of each 2.5 ECTS and one Project (5 ECTS) offered during a semester.

- To train students in skills required for preparing an academic conference.
- To give students the opportunity to position their interest within a field of their choice and academic fields in general and express that by means of activities at a conference such as lectures and workshops.
- To train students to work together and set up a plan for a conference.
- To train students in using a framework for instructional design and apply its principles to their individual contributions to the conference.
- To train students in writing lesson plans for their individual contributions to the conference and the plenary sessions that will be offered.
- To train students in working together on preparing and executing a conference.

### Description of the course

Conferences are important scientific events where researchers (and sometimes professionals) meet to share the state of the art of their field. Conferences are used to remain up to date with the latest discoveries in one's field, but they also provide unique opportunities for research collaborations.

Conferences generally organized by scientific societies. After a call for proposals a process of peer review leads to a selected group of invited speakers, poster presenters, etc. In some scientific societies, the conference is rounded up by the writings of conference proceedings. After the publication in peer reviewed journals, the presenting of research findings at an official conference is regarded one of the most important peer reviewed publications.

Throughout this semester, you will organize the Campus Venlo Liberal Arts and Sciences Conference. With the conference group, you will write an extensive plan for the annual Campus Venlo Conference (main focus of course VSK3001) to be held in the third period of this semester. In small groups, you will develop and organize a workshop for the conference (main focus of course VSK3002). You will organize and execute the Campus Venlo Conference (course VPR3001).

### Literature



Project-specific literature will be used.

### **Instructional Format**

Training, feedback and peer review in small groups.

### **Assessment**

VSK3001: Conference plan and Individual contribution plan; VSK3002: Self reflection report on project management, Lesson plan for the workshop, Conference organization progress plan; VPR3001: Workshop execution; Conference execution

## VPR3103 PEERS – Undergraduate Research

### 3000 (Life) Science Project

5 ECTS, Spring Semester, Period 4 (VSK3101 PEERS - Undergraduate Research I), Period 5 (VSK3102 PEERS - Undergraduate Research II), Period 6 (VPR3103 PEERS – Undergraduate Research III)

#### Course Coordinator

Aalt Bast, University College Venlo, FHS, Maastricht University

Contact: a.bast@maastrichtuniversity.nl

#### Pre-requisites

- ✓ VSK3101 PEERS - Undergraduate Research I; VSK3102 PEERS - Undergraduate Research II

#### Recommendations

The PEERS project is preferably done during the second year (or the third year) of your study programme.

#### Objectives

UCV PEERS is a semester research programme carrying 10 ECTS. PEERS encompasses two Skills of each 2.5 ECTS and one Project offered during a semester. In most PEERS projects, the first course period will be mainly dedicated to an introduction into the specific field and related methodologies, and research plan or proposal will be written. During the second and third periods you will be engaged in your own research activities, while staying in touch with other members of the research group to discuss progress and challenges. At the end of the semester UCV will organize a symposium during which all participating students will present their research to their fellow researchers and the larger UCV community.

- To enhance the learning experience of students by integrating research into their undergraduate curriculum.
- To emphasize the ability to identify and formulate academic problems.
- To become aware how according research methodologies provide answers and may initiate new ideas.
- To reinforce the awareness of how academic work relates to society.

#### Description of the course

PEERS is a form of RBL, Research-Based Learning. In RBL, learning is based on research that students do themselves, rather than being dependent on research done before and by others.

Small groups of students will conduct research under the guidance of a senior researcher. They will act as a group, but engage in individual work as well. PEERS offers a unique opportunity to develop one's own research topic. In this way, student researchers will make an actual contribution to ongoing research, and will experience firsthand what is involved in doing research.

During the project, specific skills will be addressed at the appropriate time: e.g. problem analysis, writing a proposal, data selection and analysis reporting and presenting.

#### Literature

Project-specific literature will be used

#### Instructional Format

Research-Based Learning, group meetings and individual research.

#### Assessment

Examination may vary and will depend on the nature of the conducted research, but will usually include:

- Presentation of the findings
- Research paper or report



## VPR3002 Think Tank

*3000 (Life) Science; Social Science Project*

5 ECTS, Fall Semester, Period 3

### Course Coordinators

Alie Boer, de, University College Venlo, FHS, Maastricht University

Contact: a.deboer@maastrichtuniversity.nl

Iris Burks, University College Venlo, FHS, Maastricht University

Contact: iris.burks@maastrichtuniversity.nl

### Pre-requisites

None

### Recommendations

It is recommended to only take Think Tank if you've taken one of the following modules: Argumentation I; Academic Debate; Statistics 1 (or 2); Public Health Policy Making. In addition, the project and the nature of the assignment require some experience in academia. Therefore students can only take the project in their fourth semester or later. This also allows students to do well and gain more from the project.

The coordinators would like to emphasize that Think Tank is a time-consuming project with a high workload, which requires highly motivated students. Students should have a broad interest in e.g. policy development and research and analysis. Due to the specific nature of the project and the fact that group work is an essential element, students should take into account that they need to be available during entire weekdays throughout the entire project.

Participating in Think Tank as part of the regular workload at UCV is doable but demanding. Therefore, having a higher workload due to e.g. additional or parallel projects is not allowed. Description of the course Students will be assigned to writing and presenting a (policy) recommendation that is partly based on the knowledge and expertise they have developed as a result of their educational programme at UCV. Students will form a 'think tank' and write and present an extensive and elaborate (policy) recommendation for a client, i.e. a company or organization. The coordinators of the project will offer a topic in advance. The first week will focus on a problem analysis and an analysis of the knowledge and expertise of the members of the think tank. The second week will focus on doing research. The third week will deal with discussing and formulating solutions. During the final week students will present their report to an audience of experts. Besides having meetings with their fellow students and a tutor, the group will might meet with guest experts (either invited by the coordinators or by the students themselves) and undertake field trips in order to obtain the required information. Students will be assigned a specific role within the think tank, depending on their academic background and skills.

### Objectives

- Let students work together and set up a problem analysis based on the assignment given by an external client, i.e. to develop skills concerning critical analysis, including the analysis of a problem, conceptualizing a problem as a case study (the ability to see the particular problem within a wider context), and to generate new knowledge relevant to the case at hand (Boyer's 'discovery' and 'integration')
- Let students work together and do research based on the assignment that was given to them, i.e. to develop skills concerning organization of work, and collaboration in a team (not specifically related to Boyer, yet instrumental towards all four aspects at the level of collaborative learning);
- Let students write a report based on an assignment that was given to them, i.e. skills related to formulating finding and recommendations in a comprehensive yet concise manner ('application' and 'teaching')

- Let students present their report to the representative and a group of experts ('teaching').

### Description of the course

Students will form a 'think tank' and write and present an extensive and elaborate (policy) recommendation for an external client, i.e. a company or organization. The students can choose from several topics before the start of the project. A creative and critical analysis of the problem at hand will lead to the application of knowledge and skills acquired at UCV through previous course work, and new insights developed during the project.

The first week will focus on a problem analysis and an analysis of the knowledge and expertise of the members of the think tank. The second week will focus on doing research. The third week will deal with discussing and formulating solutions. During the final week students will present their report to an audience of experts.

Besides having meetings with their fellow students and a tutor, the group might meet with guest experts (either invited by the coordinators or by the students themselves) and undertake self-organized field trips and external visits in order to obtain the required information.

### Literature

Students search for their own literature depending on the demands of the assignment.

### Instructional Format

Students will meet with their group on a daily basis by means of tutorial group meetings, external visits and workshops.

### Assessment

Problem analysis (group assignment), individual research memo, final group report and a final presentation of the report (group assignment).

## VCA3000 Capstone

### 3000 Core Project

20 ECTS, Spring Semester

20 ECTS, Fall Semester

### Course Coordinator

Dimona Bartelet, University College Venlo, FHS, Maastricht University

Contact: [dimona.bartelet@maastrichtuniversity.nl](mailto:dimona.bartelet@maastrichtuniversity.nl)

### Pre-requisites

To participate in Capstone students should be in their last semester at UCV and have at least 140 ECTS at the start of Capstone.

### Recommendations

Note that Capstone encompasses the regular two skills trainings, two courses and project of a UCV semester. Participating in Capstone as part of the regular workload at UCV is doable, but demanding (i.e. next to the two courses throughout the semester). Therefore, having a higher workload due to e.g. additional courses, skills trainings and/or projects is not recommended.

### Objectives

- To enable students to express their individual academic profile through a scholarly project during their last semester at the College.
- To further develop the ability to give an independent, systematic and clear treatment of a certain topic.
- To train the ability to independently identify and analyse relevant literature, theories and knowledge.
- To make systematic use of an appropriate selection of theories and methodologies in approaching questions and problems.
- To train the ability to independently acquire and handle academic knowledge through independent studies of relevant literature, and to cultivate the ability to critically evaluate and briefly account for the central elements in a large literature base.
- To assist senior students in the transition from undergraduate education to a master programme or the labour market.

### Description of the course

Throughout your career at UCV, you have developed your own curriculum. This curriculum is more than the sum of the individual courses you took. Its coherence and significance to your future has been a frequent discussion between you and your Academic Advisor. The word capstone refers to a wedged stone connecting two sides of a curved stone bridge. Your capstone serves as a connection between the various important themes in your curriculum. Capstone is the culmination of a student's academic work at UCV and is comparable in function to a bachelor thesis.

It is a full semester module for which students receive 20 ECTS. During the first weeks students will work on writing a proposal in which they formulate their individual goals and determine a topic and format appropriate to their topic. In addition, students will choose and approach an advisor. The advisor provides the student with advice and guidance on the content of the Capstone product and will be the first examiner of your Capstone.

Students work on Capstone individually. There will be meetings with the tutors, fellow students, and the coordinator. These meetings support the individual work on Capstone, by way of presenting one's own work to other students and giving and receiving feedback. Furthermore, the meetings are intended to

monitor the progress and writing process. Students will meet with their individual advisor separately from the group meetings. Those meetings are intended for discussing the content of the Capstone and for receiving individual feedback on the work in progress and the final product.

An outline is handed in at the start of the second period of Capstone. A complete draft is handed in before the third period of Capstone. Both the outline and draft are discussed with the advisor. The last period is reserved for completing and revising the Capstone.

### **Literature**

There is no preassigned literature for Capstone. Students will search for their own literature based on their capstone topic.

### **Instructional format**

Individual work, tutorial group meetings, guidance from Capstone advisor and support hours.

### **Assessment**

Students will be assessed on a proposal, an outline, and the draft + final version of their Capstone. In addition, they will present their Capstone to fellow students in the second period of the project.





## **Courses at Maastricht Science Programme & University College Maastricht**

It is possible for UCV students that already have obtained a positive Binding Study Advise to take courses at the Maastricht Science Programme and University College Maastricht, provided they meet the prerequisites of those courses. This appendix lists the courses available. As these programmes are sister programmes to UCV, the courses listed here, in the UCV course catalogue but taken at MSP and UCM, are considered internal courses for purposes of graduation, meaning that they do not count towards the 60 ECTS maximum for external education and that they do not have to be at the 3000-level. However, UCV cannot guarantee that there is no clash of schedules between these courses and the courses offered at UCV. Students must register for these courses through the external course booking module in the Student Portal, indicating backup courses on the course registration form. These courses are not available to exchange students.

After students have filled in the request in the Student Portal, and their academic adviser has approved it, the request will automatically be forwarded to the UCM/MSP Office of Student Affairs, where the course will be booked and made visible in My Timetable two weeks prior to the start of the education.

### **Important note**

Below you will find all courses which you are able to take across the three LAS colleges. Courses which are marked as “Yes, as Sciences module” or “Yes as Social Sciences module” can be taken freely, following the procedure mentioned above. Courses marked as “As External Education” count as external education subjects as described in article 3.6 of the Rules on Education and Examination.

In all cases the registration of these courses should occur only after a sound curriculum planning sheet has been created in agreement with the Academic Advisor.

### **More information**

UCV Office of Academic Advising

Iris Burks, [campusvenlo-advising@maastrichtuniversity.nl](mailto:campusvenlo-advising@maastrichtuniversity.nl)

UCM Office of Academic Advising

Lonneke Bevers and Wilfred van Dellen, [ucm-academicadvising@maastrichtuniversity.nl](mailto:ucm-academicadvising@maastrichtuniversity.nl)

MSP Office of Academic Advising

Christopher Pawley, [c.pawley@maastrichtuniversity.nl](mailto:c.pawley@maastrichtuniversity.nl)

## Period 1

### Courses

Course Code	Course Title	At	UCV allowed
BIO1001	Introduction to Natural Sciences: Biology	MSP	No
BIO2001	Cell Biology	MSP	Yes, as Sciences module
BIO2003	General Botany	MSP	Yes, as Sciences module
BIO2007	Genetics	MSP	Yes, as Sciences module
BIO3002	Ecophysiology	MSP	Yes, as Sciences module
CHE1001	Introduction to Natural Sciences: Chemistry	MSP	No
CHE2002	Inorganic Chemistry	MSP	Yes, as Sciences module
CHE2004	Spectroscopy	MSP	Yes, as Sciences module
INT2001	Nanomaterials Science and Technology	MSP	Yes, as Sciences module
INT3001	Philosophy of Technology	MSP	Yes, as Sciences module
INT3006	Creativity and Concept Development for New Business	MSP	Yes, as Sciences module
MAT2007	Introduction to Programming	MSP	Yes
MAT3003	Game Theory	MSP	No
NEU3001	Neuroscience of Action	MSP	No
PHY2003	Vibrations and Waves	MSP	Yes, as Sciences module
PHY2006	Electronics	MSP	Yes, as Sciences module
PHY3001	Quantum Mechanics	MSP	As External Education
PHY3004	Nuclear and Elementary Particle Physics	MSP	As External Education
COR1003	Contemporary World History	UCM	No
COR1005	Theory Construction and Modelling Techniques	UCM	No
HUM1011	Introduction to Art, Representations, Performances and Interactions	UCM	No
HUM1012	Pop Songs and Poetry: Theory and Analysis	UCM	No
HUM2003	The making of Crucial Differences: 'Race', Sexuality, Gender and Class in Historical Perspective	UCM	No
HUM2005	Enlightenment and Romanticism	UCM	No
HUM2046	Living in a Technological Culture: Introduction to Science and Technology Studies	UCM	No
HUM3036	Narrative Media	UCM	No
HUM3045	Distributive Justice in Contemporary Political Philosophy	UCM	No
SCI1009	Introduction to Biology	UCM	No
SCI1010	Basic Mathematical Tools	UCM	Yes, as Sciences module
SCI2002	Discrete Mathematics	UCM	Yes, as Sciences module
SCI2011	Introduction to Programming	UCM	Yes
SCI2022	Genetics and Evolution	UCM	Yes, as Sciences module
SCI3003	Optimization	UCM	Yes, as Sciences module
SCI3007	Endocrinology	UCM	Yes, as Sciences module
SSC1005	Introduction to Psychology	UCM	No
SSC1006	International Relations: Themes and Theories	UCM	Yes, as Social Sciences module
SSC1009	Introduction to European Integration	UCM	Yes, as Social Sciences module
SSC1029	Sociological Perspectives	UCM	Yes, as Social Sciences module
SSC2020	The Economics of Information	UCM	Yes, as Social Sciences module
SSC2046	Globalization and Inequality: Perspectives on Development	UCM	No
SSC3019	Human Reasoning and Complex Cognition	UCM	Yes, as Social Sciences module
SSC3030	European Institutions	UCM	Yes, as Social Sciences module

SSC3036	American Foreign Policy	UCM	Yes, as Social Sciences module
SSC3044	Culture, Politics and Society in Contemporary Asia	UCM	Yes, as Social Sciences module
SSC3054	International Trade Law: Globalisation Trade and Development	UCM	No
SSC3057	Economics and Society: History of Economic Thought	UCM	Yes, as Social Sciences module
VCO1001	Modelling Nature	UCV	NA
VSC1101	Introduction to Biology	UCV	NA
VSC1201	Introduction to Public Health	UCV	NA
VSC2205	Nutrition and Metabolism	UCV	NA
VSC2301	Operations Management	UCV	NA
VSC3101	Gut Microbiology	UCV	NA
VSC3203	Food Innovation	UCV	NA
VSC3206	Nutritional Pharmacotherapy	UCV	NA
VSS1101	Introduction to Psychology	UCV	NA
VSS1201	Introduction to Business Administration	UCV	NA
VSS2103	Cognitive Psychology	UCV	NA
VSS2105	Social Psychology	UCV	NA
VSS2204	International Macroeconomics	UCV	NA
VSS3501	European Food Law	UCV	NA

## Skills Training

Course Code	Course Title	At	UCV allowed
PRA1001	Research Methods	MSP	No
PRA2002	Chemical Synthesis	MSP	Yes, as Sciences module
PRA2004	Inorganic Synthesis	MSP	Yes, as Sciences module
PRA2006	Electronics	MSP	Yes, as Sciences module
PRA2014	Genetics	MSP	Yes, as Sciences module
PRA2015	Advanced Academic Skills	MSP	No
PRA3011	The Limburg Landscape	MSP	Yes, as Sciences module
PRA3017	Applied Cell Biology	MSP	Yes, as Sciences module
PRA3018	Molecular Modelling	MSP	Yes, as Sciences module
SKI1004	Research Methods I	UCM	No
SKI1008	Introduction to Academic Skills I	UCM	No
SKI2000	Language Trainings	UCM	No
SKI2007	Presentation Skills	UCM	No
SKI2049	Argumentation I	UCM	No
SKI2085	Ethnography and Qualitative Interviewing I	UCM	Yes
SKI2088	Lab Skills: Genetics	UCM	No
VSK1001	Introduction to Academic Skills	UCV	NA
VSK2001	Argumentation	UCV	NA
VSK2002	Lab Skills 2	UCV	NA
VSK2004	Academic Writing	UCV	NA
VSK2006	Clinical Lab Skills	UCV	NA

## Period 2

### Courses

Course Code	Course Title	At	UCV allowed
BIO2004	General Zoology	MSP	Yes, as Sciences module
BIO3001	Molecular Biology	MSP	No
BIO3007	Tropical Ecology	MSP	Yes, as Sciences module
CHE2001	Organic Chemistry	MSP	Yes, as Sciences module
CHE2003	Physical Chemistry	MSP	Yes, as Sciences module
CHE2006	Biochemistry	MSP	No
CHE3001	Organic Reactions	MSP	Yes, as Sciences module
CHE3004	Modern Catalytic Chemistry	MSP	Yes, as Sciences module
CHE3007	Advanced Physical Chemistry	MSP	As External Education
INT1001	Introduction to Liberal Arts and Sciences	MSP	No
INT2007	Science-in-Action	MSP	Yes, as Sciences module
INT3005	Bio-based Materials and Technology	MSP	Yes, as Sciences module
INT3007	Systems Biology	MSP	Yes, as Sciences module
MAT2002	Optimization	MSP	Yes, as Sciences module
MAT3002	Mathematical System Theory	MSP	Yes, as Sciences module
NEU2001	Cognitive Neuroscience: From Sensation to Perception	MSP	Yes, as Sciences module
PHY1001	Elements of Physics	MSP	Yes, as Sciences module
PHY1002	Introduction to Natural Sciences: Mathematical Foundations of Physics	MSP	No
PHY3002	Theory of Relativity	MSP	As External Education
COR1002	Philosophy of Science	UCM	No
COR1004	Political Philosophy	UCM	No
HUM1007	Introduction to Philosophy	UCM	No
HUM1010	Common Foundations of Law in Europe	UCM	No
HUM1013	The Idea of Europe: The Intellectual History of Europe	UCM	No
HUM2013	The Presence of Art: Reinterpreting Modern and Contemporary Art	UCM	No
HUM2014	Philosophers of the TH Century	UCM	No
HUM2018	Cultural Diversity in a Globalizing World	UCM	No
HUM2022	Digital Media	UCM	No
HUM2057	Religion and Secularization	UCM	No
HUM3040	Crucial Differences in the 21ST Century	UCM	No
HUM3049	Science, Power and the Construction of Facts	UCM	No
HUM3050	A Cultural Critique of Our Aging World	UCM	No
SCI1004	Introduction to Chemistry	UCM	No
SCI1005	The Digital Enterprise	UCM	Yes, as Sciences module
SCI1016	Sustainable Development: an Introduction	UCM	No
SCI2018	Calculus	UCM	Yes, as Sciences module
SCI2034	Brain and Action	UCM	No
SCI2035	Biochemistry	UCM	No
SCI2036	Artificial Intelligence	UCM	Yes, as Sciences module
SCI3005	Metabolism, Nutrition and Exercise	UCM	No
SCI3033	Physical Chemistry	UCM	Yes, as Sciences module
SCI3050	Advances in Biomedical Science	UCM	Yes, as Sciences module

SSC1007	Introduction to Law and Legal Reasoning	UCM	No
SSC1027	Principles of Economics	UCM	No
SSC2019	Social Psychology	UCM	No
SSC2024	International Law	UCM	Yes, as Social Sciences module
SSC2025	Memory	UCM	Yes, as Social Sciences module
SSC2028	Classical Sociology	UCM	Yes, as Social Sciences module
SSC2036	Introduction to Business Administration	UCM	No
SSC2039	History of Western Political Thought	UCM	Yes, as Social Sciences module
SSC2048	Intermediate Microeconomics	UCM	No
SSC2055	Entrepreneurship	UCM	No
SSC2061	Statistics I	UCM	No
SSC3012	War in World Politics	UCM	Yes, as Social Sciences module
SSC3032	Atrocity Triangle: a Course on the Criminology of Gross Human Rights Violations	UCM	Yes, as Social Sciences module
SSC3033	Economic Psychology	UCM	No
SSC3045	Management & Organization of Asian Enterprises	UCM	Yes, as Social Sciences module
SSC3047	Urbanisation, Development and Poverty	UCM	Yes, as Social Sciences module
SSC3049	Human Rights: Principles and Polemics	UCM	Yes, as Social Sciences module
SSC3050	Foreign Policy Analysis	UCM	Yes, as Social Sciences module
VCO1004	Globalisation: World Politics and Economics	UCV	NA
VSC1301	Statistics 1	UCV	NA
VSC1401	Introduction to Chemistry	UCV	NA
VSC2103	Pharmacology and Toxicology	UCV	NA
VSC2104	Molecular Biology	UCV	NA
VSC2204	Public Health Policy Making	UCV	NA
VSC2207	Plant Biology and Agriculture	UCV	NA
VSC3204	Food Safety	UCV	NA
VSC3207	Sports Nutrition and Physiology	UCV	NA
VSS2101	Psychology of Eating	UCV	NA
VSS2201	Advertising: Marketing Communication of Brands	UCV	NA
VSS2202	Intermediate Microeconomics	UCV	NA
VSS2502	International Trade Law	UCV	NA
VSS3301	Social and Environmental Entrepreneurship	UCV	NA

## Skills Training

Course Code	Course Title	At	UCV allowed
PRA1002	Research, Data Analysis and Presentation Academic Skills	MSP	No
PRA1003	Basic Physics Laboratory	MSP	No
PRA2003	Programming	MSP	No
PRA2007	Physics Laboratory	MSP	Yes, as Sciences module
PRA2010	Synthetic Biology	MSP	Yes, as Sciences module
PRA3001	Advanced Organic Synthesis	MSP	Yes, as Sciences module
PRA3002	Advanced Physics Laboratory	MSP	As External Education
PRA3003	Molecular Biology	MSP	No
PRA3005	Polymer Processing	MSP	Yes, as Sciences module
PRA3006	Programming in the Life Sciences	MSP	As External Education
SKI1005	Research Methods II	UCM	No
SKI1009	Introduction to Academic skills II	UCM	No
SKI2084	Writing in an Academic Context: Improving Argumentation and Style	UCM	No
SKI2086	Lab Skills: Biochemistry	UCM	No
SKI3002	Argumentation II	UCM	Yes
SKI3050	Preparing Conference	UCM	No
SKI3052	Ethnography and Qualitative Interviewing II	UCM	Yes
VSK1002	Research Methods I	UCV	NA
VSK2000	Language Training: German professional proficiency at B2	UCV	NA
VSK2003	Lab Skills 3	UCV	NA
VSK2005	Presentation Skills	UCV	NA
VSK3003	Advanced Epidemiology of Food	UCV	NA

## Period 3

### Projects

Course Code	Course Title	At	UCV allowed
PRO1010	Introducing Academic Communication: a Writing Project	UCM	No
PRO1012	Research Project	UCM	No
PRO2003	Writing Project: 'The journal'	UCM	Yes
PRO2004	Project Academic Debate	UCM	No
PRO2011	Project Deep Reading	UCM	Yes
PRO3006	Conference	UCM	No
PRO3008	Think Thank	UCM	No
PRO3009	Ethnography and Qualitative Interviewing III	UCM	Yes
PRO3011	Science Research Project	UCM	Yes
VPR1003	Research Methods II: Applied Academics	UCV	NA
VPR1004	Research Methods II: Lab Skills	UCV	NA
VPR2001	Writing a Research Proposal	UCV	NA
VPR2002	Academic Debate	UCV	NA
VPR3002	Think Tank	UCV	NA

## Period 4

### Courses

Course Code	Course Title	At	UCV allowed
BIO1001	Introduction to Natural Sciences: Biology	MSP	No
BIO2001	Cell Biology	MSP	Yes, as Sciences module
BIO2005	Evolutionary Biology	MSP	Yes, as Sciences module
BIO2010	Human Anatomy and Physiology	MSP	No
BIO3010	Genomics and Proteomics	MSP	Yes, as Sciences module
CHE1001	Introduction to Natural Sciences: Chemistry	MSP	No
CHE2001	Organic Chemistry	MSP	Yes, as Sciences module
CHE3005	Industrial Chemistry	MSP	As External Education
INT1003	Introduction to Biomedical Engineering	MSP	Yes, as Sciences module
INT2002	Science and Sustainable Development	MSP	Yes, as Sciences module
INT2008	Molecular Toxicology	MSP	No
INT3003	Biomaterials	MSP	Yes, as Sciences module
INT3008	Regenerative Medicine	MSP	Yes, as Sciences module
MAT1005	Mathematics for the Natural Sciences	MSP	Yes, as Sciences module
MAT2006	Calculus	MSP	Yes, as Sciences module
MAT2008	Differential Equations	MSP	Yes, as Sciences module
MAT3001	Data Structures and Algorithms	MSP	Yes, as Sciences module
NEU1001	Introduction to Neuroscience	MSP	Yes, as Sciences module
PHY1001	Elements of Physics	MSP	Yes, as Sciences module
PHY2002	Thermodynamics and Statistical Physics	MSP	No
PHY2004	Electromagnetism	MSP	Yes, as Sciences module
COR1003	Contemporary World History	UCM	No
COR1005	Theory Construction and Modelling Techniques	UCM	No
HUM1003	Cultural Studies I: Doing Cultural Studies	UCM	No
HUM1014	Great Novels: Present	UCM	No
HUM2021	Medieval Civilization	UCM	No
HUM2044	Philosophy of Language	UCM	No
HUM2047	The Future of Literature?	UCM	No
HUM2051	Philosophical Ethics	UCM	No
HUM2054	Reading Philosophers	UCM	No
HUM3019	Totalitarian Temptation	UCM	No
HUM3029	Literature and Psychology	UCM	No
HUM3041	Shakespeare on Screen	UCM	No
HUM3051	Medical Humanities: Bodies & Minds, Histories of the Normal and the Pathological	UCM	No
SCI2010	Introduction to Game Theory	UCM	No
SCI2033	Datamining	UCM	Yes, as Sciences module
SCI2037	Cell Biology	UCM	Yes, as Sciences module
SCI2038	Physics	UCM	Yes, as Sciences module
SCI2040	Microbiology	UCM	No
SCI3006	Mathematical Modelling	UCM	Yes, as Sciences module
SSC1005	Introduction to Psychology	UCM	No
SSC1007	Introduction to Law and Legal Reasoning	UCM	No



SSC1025	Introduction to Political Science	UCM	Yes, as Social Sciences module
SSC2006	Developmental Psychology	UCM	Yes, as Social Sciences module
SSC2018	Advertising: Marketing Communications of Brands	UCM	No
SSC2027	Law and Society	UCM	Yes, as Social Sciences module
SSC2037	Violence and Conflict: Theories, Themes and Cases	UCM	Yes, as Social Sciences module
SSC2038	International Macroeconomics	UCM	No
SSC2052	Public Economics	UCM	Yes, as Social Sciences module
SSC2059	Social Movements	UCM	Yes, as Social Sciences module
SSC2062	Foundations of Cognitive Psychology	UCM	No
SSC2064	Migration Studies: Flows and Concepts	UCM	Yes, as Social Sciences module
SSC2065	Theories of Social order	UCM	No
SSC3011	Public Policy Evaluation	UCM	No
SSC3017	Social and Sustainable Entrepreneurship	UCM	No
SSC3023	Philosophy of Mind	UCM	Yes, as Social Sciences module
SSC3038	Contemporary Sociological Theory	UCM	Yes, as Social Sciences module
SSC3055	Chinese International Relations and Foreign Policy	UCM	Yes, as Social Sciences module
VCO1003	World Orientation: An Introduction to Cultural Studies	UCV	NA
VSC1302	Introduction to Programming	UCV	NA
VSC1501	Sustainable Development	UCV	NA
VSC2102	Homeostatic Principles	UCV	NA
VSC2106	Brain and Action	UCV	NA
VSC2201	Epidemiology of Food; The Relationship Between Food and Health	UCV	NA
VSC2302	Calculus	UCV	NA
VSC2401	Biochemistry	UCV	NA
VSC3201	Clinical Nutrition	UCV	NA
VSC3202	Health Education & Communication	UCV	NA
VSC3501	Sustainable Food Production	UCV	NA
VSS1202	Principles of Economics	UCV	NA
VSS1501	Introduction to Law	UCV	NA
VSS2203	Finance and Investments	UCV	NA
VSS2701	Culture Politics and Society	UCV	NA
VSS3102	Taste	UCV	NA
VSS3202	Consumer Behaviour	UCV	NA

## Skills Training

Course Code	Course Title	At	UCV allowed
PRA1001	Research Methods	MSP	No
PRA1007	Brain Anatomy	MSP	Yes, as Sciences module
PRA2002	Chemical Synthesis	MSP	Yes, as Sciences module
PRA2005	Advanced Molecular Laboratory Skills	MSP	No
PRA2011	Exploring the World of Plants	MSP	No
PRA2013	Practical Zoology	MSP	Yes, as Sciences module
PRA3012	Advanced Electronics	MSP	As External Education
PRA3013	Bioinorganic Chemistry	MSP	As External Education
PRA3014	Spectroscopic Methods	MSP	Yes, as Sciences module
SKI1004	Research methods I	UCM	No
SKI1008	Introduction to Academics skills I	UCM	No
SKI2000	Language Trainings	UCM	No
SKI2005	Back to the Sources	UCM	Yes
SKI2007	Presentation Skills	UCM	No
SKI2049	Argumentation I	UCM	No
SKI2077	Lab Skills: Cell Biology	UCM	Yes, as Sciences module
VSK1000	The Applied Researcher I	UCV	NA
VSK3001	Preparing Conference I	UCV	NA
VSK3101	Undergraduate Research I	UCV	NA

## Period 5

### Courses

Course Code	Course Title	At	UCV allowed
BIO2002	Ecology	MSP	Yes, as Sciences module
BIO3003	Microbiology	MSP	No
BIO3004	Animal Behavior	MSP	Yes, as Sciences module
BIO3005	Biotechnology	MSP	As External Education
CHE2005	Chemistry for the Future: Generation and Storage of Alternative Energy	MSP	Yes, as Sciences module
CHE3002	Transition Metal Chemistry	MSP	As External Education
CHE3006	Quantum Chemistry	MSP	As External Education
INT1001	Introduction to Liberal Arts and Sciences	MSP	No
INT1002	Basic Principles of Pharmacology	MSP	No
INT1005	Commercializing Science and Technology	MSP	Yes, as Sciences module
INT3002	Advanced Microscopy: Theory and Applications	MSP	Yes, as Sciences module
INT3010	Science and the Visual Arts: Conservation and its Histories	MSP	Yes, as Sciences module
MAT1006	Applied Statistics	MSP	No
MAT2004	Linear Algebra	MSP	Yes, as Sciences module
MAT2005	Statistics	MSP	No
MAT3005	Numerical Mathematics	MSP	Yes, as Sciences module
NEU1002	Cognitive Neuroscience: Biological Foundations of Behavior	MSP	Yes, as Sciences module
NEU2002	Neuropsychopharmacology	MSP	Yes, as Sciences module
PHY1002	Introduction to Natural Sciences: Mathematical Foundations of Physics	MSP	No
PHY2001	Classical Mechanics	MSP	No
PHY2005	Quantum Theory	MSP	No
COR1002	Philosophy of Science	UCM	No
COR1004	Political Philosophy	UCM	No
HUM2007	States and Nations in Europe, from the Middle Ages to the First World War	UCM	No
HUM2008	Introduction to Ancient Philosophy	UCM	No
HUM2030	Media and Technology: Philosophical Perspectives	UCM	No
HUM2031	Cultural Studies II: Visual Cultures	UCM	No
HUM2043	Film Art	UCM	No
HUM2050	Topics in European Urban History	UCM	No
HUM2056	Cultural Remembrances	UCM	No
HUM3034	World History	UCM	No
HUM3042	Biopoetics: an Evolutionary Approach to Art, Literature, Music and Religion	UCM	No
SCI2009	Human Physiology	UCM	No
SCI2017	Organic Chemistry	UCM	No
SCI2019	Linear Algebra	UCM	Yes, as Sciences module
SCI2031	Immunology	UCM	Yes, as Sciences module
SCI2039	Computer Science	UCM	No
SCI3046	Cognitive Neuroscience	UCM	Yes, as Sciences module
SCI3049	Pathobiology and Disease	UCM	Yes, as Sciences module
SCI3051	Data Analytics	UCM	No
SSC1006	International Relations: Themes and Theories	UCM	Yes, as Social Sciences module
SSC1027	Principles of Economics	UCM	No

SSC2004	Clinical Psychology	UCM	Yes, as Social Sciences module
SSC2008	Organization Theory	UCM	Yes, as Social Sciences module
SSC2022	Accounting and Accountability	UCM	Yes, as Social Sciences module
SSC2042	Rights of the Child	UCM	Yes, as Social Sciences module
SSC2043	Development Economics	UCM	Yes, as Social Sciences module
SSC2050	Psychology and Law	UCM	Yes, as Social Sciences module
SSC2053	Public Health Policymaking	UCM	No
SSC2060	Comparative Constitutional Law	UCM	Yes, as Social Sciences module
SSC2063	The Psychology of Individual Differences: Personality and Intelligence	UCM	Yes, as Social Sciences module
SSC2066	Protection of Civilians in Armed Conflict	UCM	Yes, as Social Sciences module
SSC3002	European Foreign Policy	UCM	Yes, as Social Sciences module
SSC3018	Statistics II	UCM	No
SSC3040	Identities	UCM	Yes, as Social Sciences module
SSC3051	Contemporary Critical Security Studies	UCM	Yes, as Social Sciences module
SSC3052	The Aftermath of Atrocity: a Course on Transitional Justice and Post-Conflict Reconstruction	UCM	Yes, as Social Sciences module
SSC3053	Corporate Finance: Behavioural Foundations	UCM	No
SSC3056	Innovation Systems, Policy and Sustainability Transitions	UCM	Yes, as Social Sciences module
VCO1002	Philosophy of Science	UCV	NA
VSC2105	Microbiology	UCV	NA
VSC2202	Food and Disease	UCV	NA
VSC2203	Food Technology and Processing	UCV	NA
VSC2303	Statistics 2	UCV	NA
VSC3102	Healthy Life Cycle	UCV	NA
VSC3205	Public Health Implementation and Evaluation	UCV	NA
VSS1701	Macro Sociology: An Introduction to Human Societies	UCV	NA
VSS2102	Behaviour Change	UCV	NA
VSS2106	Economic Psychology	UCV	NA
VSS2205	Game Theory	UCV	NA
VSS2301	Entrepreneurship	UCV	NA
VSS3101	Performance Psychology in Sports and Business	UCV	NA
VSS3201	Production Planning and Management	UCV	NA

## Skills Trainings

Course Code	Course Title	At	UCV allowed
PRA1002	Research, Data Analysis and Presentation Academic Skills	MSP	No
PRA1003	Basic Physics Laboratory	MSP	No
PRA1004	Scientific Computing	MSP	Yes, as Sciences module
PRA1005	Data Collection Techniques in the Neurosciences	MSP	Yes, as Sciences module
PRA2007	Physics Laboratory	MSP	Yes, as Sciences module
PRA2009	Field Skills	MSP	Yes, as Sciences module
PRA3002	Advanced Physics Laboratory	MSP	As External Education
PRA3007	Conservation Science Skills	MSP	Yes, as Sciences module
PRA3008	Transition Metal Chemistry	MSP	As External Education
PRA3010	Microbiology Skills	MSP	No
PRA3019	Plant Breeding and Physiology	MSP	Yes, as Sciences module
SKI1005	Research Methods II	UCM	No
SKI1009	Introduction to Academics Skills II	UCM	No
SKI2079	Lab Skills: Human Anatomy & Histology	UCM	No
SKI2083	Strategy and Negotiation	UCM	Yes
SKI2084	Introduction to Discourse Analysis	UCM	Yes
SKI2084	Writing in an Academic Context: Improving Argumentation and Style	UCM	No
VSK1004	The Applied Researcher II	UCV	NA
VSK3002	Preparing Conference II	UCV	NA
VSK3102	Undergraduate Research II	UCV	NA

## Period 6

### Projects

Course Code	Course Title	At	UCV allowed
PRO1010	Introducing Academic Communication: a Writing Project	UCM	No
PRO1012	Research Project	UCM	No
PRO2003	Writing Project: 'The journal'	UCM	Yes
PRO2004	Project Academic Debate	UCM	No
PRO2012	EU Strategy and Negotiation Simulation	UCM	Yes
PRO3008	Think Thank	UCM	No
VPR1002	The Applied Researcher III	UCV	NA
BTR3000	Bachelor Thesis Research	MSP	No
CAP3000	Capstone	UCM	No
VCA3000	Capstone	UCV	NA
UGR3001	MaRBLLe Undergraduate Research	UCM	No
UGR3003	Applied Research & Internship Project	UCM	No
BTR3000	Bachelor Thesis Research	MSP	No
CAP3000	Capstone	UCM	No
VPR3001	Conference	UCV	NA
VPR3103	Undergraduate Research	UCV	NA
UGR3001	MaRBLLe Undergraduate Research	UCM	No
UGR3002	UGR UCM Undergraduate Research / the Documentary	UCM	Yes
UGR3003	Applied Research & Internship Project	UCM	No