

Core courses

Core Courses

World Orientation: An Introduction to Cultural Studies

Full course description

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?

Course 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 for or against a perspective on 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 critical thinking question for your fellow students or answer theirs.

Prerequisites

Recommended:

Given the extensive reading load, including many classics, and the required abstract thinking level, it is advised to not take this course in the first 6 months of your study.

Recommended reading

An e-reader will be provided which contains numerous literature sources per task.

VCO1003

Period 4

University College Venlo

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Drosinou](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Philosophy of Science

Full course description

This course deals with the question: What is science? We will start with common sense ideas that science is based on observation, and that this is what distinguishes it from other types of belief. From there we will move to more sophisticated positions like critical rationalism, the so-called historical and sociological turn in the theory of science. In the last part of the course we will focus on problems in the social sciences.

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? How do the social sciences explain human behaviour? What is the role of social science in society?

Course objectives

- To familiarize students with the philosophical foundations of scientific method.

Prerequisites

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

Recommended reading

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

VCO1002

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

- [R.C. Havermans](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Final paper, Written exam

Modelling Nature

Full course description

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 everyday 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.

Course 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.

Prerequisites

This course provides an introduction to theorizing and modeling. 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.**

Recommended reading

- Jaccard J. and Jacoby J. (2020). Theory Construction and Model-Building Skills - A Practical Guide for Social Scientists, 2nd edition. New York: The Guilford Press.
- Additional materials (original research articles and relevant knowledge clips) will be made available on Student Portal.

University College Venlo

VCO1001

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A. de Boer](#)

Teaching methods:

PBL, Lecture(s), Training(s)

Assessment methods:

Attendance, Assignment, Written exam

Globalisation: World Politics and Economics

Full course description

In this course students will use ideas from political philosophy to understand issues that are characteristic of our increasingly globalized world. We will study the problem of increasing inequality, and use Rawls' theory of justice to get a handle on that. We will also look at this from the perspective of freedom and the various forms of liberty. Elizabeth Anderson's idea of 'private government' will be used to understand the disparity between freedom and reality for most of society. In a globalized world the old problem of the tragedy of the commons takes on new forms. What can we say about this from the philosophy of property rights? What is the role of the nation state in a globalized world where patterns of migration can upset notions of cultural identity. Where cultures are mixed and mingled, what happens to authenticity? For many today the idea of climate change looms large on the future. What is justice in relation to changes in climate? If future generations have rights, what are these based on? If we want to change the behavior of people (for instance to reduce their environmental footprint), what are the limits of our right to do so? How far can we interfere with their freedom?

Course objectives

This course provides students with a basic knowledge on issues related to 'globalization'. It will look at such issues from the perspective of ideas in political philosophy.

Recommended reading

In this course students do not use one textbook. Instead an e-reader will be provided which contains the readings per problem.

VCO1004

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

University College Venlo

5.0

Coordinator:

- [M.T. Kiefer](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Take home exam

Concentration

Concentration: Social Sciences

Introduction to Psychology

Full course description

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. Psychological 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 idiosyncratic beliefs. It will tackle questions like: Do we have free will? Why do we blindly obey authority? Can we trust our own memory?

Course 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.

Prerequisites

All students are welcome. No prerequisites.

Recommended: *"It pays to keep an open mind, but not so open your brains fall out."* – Carl Sagan

Recommended reading

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

VSS1101

Period 1

5 Sep 2022

University College Venlo

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.A. van den Heuvel](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Introduction to Business Administration

Full course description

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).

Course 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.

Recommended reading

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

VSS1201

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [P.W.L. Bollen](#)

Teaching methods:

Work in subgroups, PBL

Assessment methods:

Attendance, Participation, Written exam, Assignment

Cognitive Psychology

Full course description

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.

Course 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.

Prerequisites

VSS1101 Introduction to Psychology

- [Introduction to Psychology](#)

Recommended reading

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

VSS2103

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.J. Schreuder](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Social Psychology

Full course description

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, 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.

Course objectives

- You can recall and explain basic social psychological theories and models (e.g. attribution theory; bystander effect) 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.

Recommended reading

- 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.

VSS2105

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [J.A.Y. van Diesen](#)

Teaching methods:

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Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Assignment

International Macroeconomics

Full course description

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.

Course objectives

- Learn how to analyse 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

Prerequisites

VSS1202 Principles of Economics

- [Principles of Economics](#)

Recommended reading

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

VSS2204

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [T.G. Treibich](#)

Teaching methods:

PBL

Assessment methods:

Attendance, Written exam, Presentation

Supply Chain Management

Full course description

This course is an introduction course into supply chain management, in particular we will focus on the food and health care industry. Students will acquire a solid foundation in the topics and tools of both operations and supply chain management. While a strong internal operations function is vital to a firm's survival, it is not sufficient. Firms must also understand how they link with their supply chain partners, including customers, distributors, manufacturers, and suppliers. In this course, we will cover a wide range of topics such as supply chain strategy, purchasing, logistics, inventory, ethics and sustainability. Students learn directly about these concepts from a textbook and application to cases and exercises, and additionally work on a team project to analyse a part of a supply chain.

Course objectives

Students understand core supply chain concepts and theories and use them in relation to the wider business environment. Students can solve practical problems using tools and quantitative techniques and interpret the outcome to advice a solution. Students learn to analyse ethical and sustainable issues in supply chains that affect their daily lives and make choices to reflect these considerations.

Prerequisites

- VSS1202 Introduction to Business Administration

OR

- At least one other business-oriented course (at the discretion of the coordinator)
- [Introduction to Business Administration](#)

Recommended reading

Swink, M., S.A. Melnyk, and J.L. Hartley. 2019. Managing Operations across the Supply Chain. Fourth edition. McGraw Hill Education. ISBN: 9781260547634

VSS2206

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [P.L.J. van Beusekom](#)

Teaching methods:

Lecture(s), PBL

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Assessment methods:

Attendance, Assignment, Participation, Written exam

European Food Law

Full course description

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.

Course objectives

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

Prerequisites

At least two courses in the Social Sciences **and/or** [VSS1502 Law and Legal Reasoning](#)

VSS3501

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [E.I.L. Vos](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Final paper, Written exam

Psychology of Eating

Full course description

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?

Course objectives

- To provide insight into the various psychological influences on eating behaviour
- To provide insight into how the psychology of eating can be studied
- Critically analyzing in pairs a provided topic related to psychology of eating

Recommended reading

Different articles and sources will be provided through KeyLinks.

VSS2101

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.A. van den Heuvel](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Take home exam

Intermediate Microeconomics

Full course description

Economists study the production and allocation of scarce resources, and one of their primary tools for doing so is microeconomic analysis. This methodology starts from the idea that, within a given institutional framework, economic outcomes are the product of choices made by many different individuals. With the micro approach, economists first study individual decisions, then study how these decisions collectively lead to broader outcomes in society.

In this course, you will be provided with tools to perform this kind of analysis, with an emphasis on the analysis of markets. For example, we will work closely with mathematical models of how consumers and producers respond to prices, as well as models of which prices they may face—both when the market is competitive and when it is not. We will also consider several criteria for comparing economic outcomes, and use them to assess various kinds of market regulations.

Ultimately, this is a course about techniques. The purpose of this course is not to provide you with

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answers to questions of economic policy, but rather with the techniques to rigorously form your own questions and answers.

Course objectives

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

Prerequisites

Recommended

Introduction to Statistical Methods and Data Analysis (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.

Recommended reading

The primary textbook for the course is:

- Varian, H. (2009). Intermediate Microeconomics: A Modern Approach (Eighth Edition). New York, NY: W.W. Norton & Company.

OR

- Varian, H. (2014). Intermediate Microeconomics: A Modern Approach (Ninth Edition). New York, NY: W.W. Norton & Company.

Note that reading instructions are provided for both editions

VSS2202

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A.K. Mackenzie](#)

Teaching methods:

PBL

Assessment methods:

Attendance, Participation, Presentation, Written exam

Finance and Investments

Full course description

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, trade-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. To conclude, the goal of this course is to develop financial skills for making corporate and personal investment and financing decisions. Topics include discounted cash flow and other valuation techniques; risk and return; capital asset pricing model; corporate capital structure and financial policy; capital budgeting; and other exotic investment vehicles like cryptocurrencies, stock options, etc.

Course 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. fintech 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

Recommended reading

- Berk & De Marzo, Corporate Finance, Pearson Prentice Hall

VSS2203

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [J.M.R. Merk](#)

Teaching methods:

University College Venlo

Lecture(s), PBL

Assessment methods:

Attendance, Participation, Written exam, Assignment

Social and Environmental Entrepreneurship

Full course description

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.

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.

Prerequisites

At least one of the following courses:

- [VSS1201 Introduction to Business Administration](#)
- [VSC1501 Sustainable Development](#)
- [VSS2301 Entrepreneurship](#)

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

Recommended reading

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

VSS3301

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A.A. Diaz Gonzalez](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Participation, Final paper

Principles of Economics

Full course description

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 and social policy debates which dominate the news on an almost daily basis and a measured appreciation for mathematical models of human behavior.

Course 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 inequality, behavioral economics, the economics of climate change, etc.

Prerequisites

None.

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Knowledge of basic mathematical concepts such as solving equations, reading and working with graphs, manipulating inequalities, and elementary calculus.

Recommended reading

Online textbook "The Economy": <https://core-econ.org/the-economy/index.html>

VSS1202

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [N.J. Mourmans](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Participation, Assignment, Written exam

Law and Legal Reasoning

Full course description

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.

Course objectives

- To introduce students to the common fundamentals of modern legal systems
- 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

Prerequisites

This course is recommended to those interested in public policy and on the relevance of rules in structuring social behaviour.

In addition, the course is also relevant for students interested in pursuing further studies in the European Union.

Recommended reading

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

Extra readings will be made available through Student Portal.

VSS1502

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [G.M. Arosemena Solorzano](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Culture Politics and Society

Full course description

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, marketing or artistic representations. This interdisciplinary course integrates insights and approaches from 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.

Course objectives

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

VSS2701

Period 4

6 Feb 2023

University College Venlo

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [J.C.M. Wachelder](#)

Teaching methods:

PBL, Lecture(s)

Assessment methods:

Attendance, Presentation, Final paper

Brand Management and how to Communicate about Brands

Full course description

“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.

Course 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.

Prerequisites

None, but recommended

VSS1101 Introduction to Psychology or VSS1201 Introduction to Business Administration

Recommended reading

No obligatory book but E-reader in reference list

VSS2207

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [T.P. Döring](#)

Teaching methods:

Lecture(s), PBL, Presentations

Assessment methods:

Attendance, Assignment, Presentation, Participation

Consumer Behaviour

Full course description

In this course we explore how consumers make decisions and how companies and governments use that information. We will explore, among other things, how people decide which insurances to buy - if any, how consumers deal with decisions that 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 cellphone 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.

Course objectives

- Learn to use theories from (behavioral) 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 behavior and preferences of consumers

Prerequisites

Recommendations

[VSS1202 Principles of Economics](#) or [VSS2202 Intermediate Microeconomics](#)

Recommended reading

No book, papers will be assigned

VSS3202

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M. Wibrals](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Participation, Presentation, Final paper

Macro Sociology: An Introduction to Human Societies

Full course description

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. This course not only explores the social roots of these divisions, but also introduces you to sociological concepts and theories that allow 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.

Course 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.

Recommended reading

Ferrante-Wallace, J. (2015). *Sociology: A global perspective* (Ninth edition. ed.). Stamford, CT: Cengage Learning.

VSS1701

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [J.L.M. Bruyninckx](#)

Teaching methods:

PBL

Assessment methods:

Attendance, Participation, Assignment, Final paper

Services Marketing

Full course description

Much of the economy in the developed world is dominated by the production and consumption of services. For example, in the US, current statistics show that approximately 75% of the work force is involved in the services industry. Additionally, 45% of an average US family's budget is spent on services, and for Europe statistics are similar. In many developing nations services are considered a way to expand and stimulate economic growth and development. Consistent with economic growth comes a growth in services employment. While most business schools focus on the manufacturing segment of the economy, given these facts it seems imperative to study the marketing of services in a separate course. Three kinds of services will form the central focus of this course: (1) Services which are offered by organizations in the service-sector (banks, assurance and transport companies, the hotel and catering industry, health care and the tourist industry, among others), (2) Services which are offered by companies that manufacture products. In this context services refer mostly to the so-called "after-sales service" (repair services, service engineers, etc.) but also (product) instructions accompanying a sale, and (3) a specific focus on the online context of social media, virtual communities, Twitter etc. as these hold promising potential for service delivery and as they form a new frontier for both practitioners as well as researchers. Service organisations vary, from restaurants, hotels and car rental agencies to financial services and even education. These organisations require a distinctive approach to marketing strategy. We will build on the principle of marketing and expand into very specific themes covering the entire spectrum of services, seen through many angles and illustrated by relevant case studies. In the course we will explore methods, based on academic research, in which firms can use service as a unique selling proposition. We have designed this course to address the unique needs and challenges in this ever-changing aspect of marketing, including the dynamic and rapidly developing area of electronic and mobile services. Throughout the course emphasis will be placed more specifically on issues related to marketing management and customer perceptions. Thus, a number of presentation topics need to be researched both in a theoretical and a practical manner in addition to the discussion of a number of tasks. Moreover, to enhance understanding of the course concepts, several elaborate cases will be

discussed and student teams will complete a real-life services marketing project.

Course objectives

The general objective of this course is to introduce the different characteristics of services and their particular consequences for marketing. On the one hand, this will be accomplished by studying the literature (the course textbook and selected articles). On the other hand, a major emphasis will be placed on presentations in which teams of participants are expected to lead the discussion on various service marketing themes and real-life cases. In addition, students will work in teams on a real-life services marketing project. By these means, students should obtain an in-depth insight into the literature on the marketing of services and at the same time develop a (hands-on) feeling for conducting research in this area. Would-be participants should be aware of the fact that this course requires a considerable amount of planning, effort, and inventiveness.

Prerequisites

At least two courses in the Social Sciences

Recommended reading

Wilson, Zeithaml, Bitner & Gremler, 2021, Services Marketing, 4rd Edition, McGraw Hill Education, ISBN 10 1526847809

VSS3203

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [T.G. Hilken](#)

Teaching methods:

Lecture(s), PBL, Project-Centered Learning

Assessment methods:

Attendance, Participation, Assignment, Written exam

Behaviour Change

Full course description

Many people occasionally engage in undesirable behaviours, such as eating too much junk food, stealing other people's food, spending too much time lunching at work, or restrain eating out of fear for weight gain. People are often aware of the potentially negative consequences of these behaviours, but knowledge alone rarely motivates behaviour change. 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

unwanted, unhealthy, or psychopathological behaviours? We will look at how individual, social, and environmental factors may contribute to behaviour change.

Course 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 apply theories and ideas to understand behaviour across different domains.

Recommended reading

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

VSS2102

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.A. van den Heuvel](#)

Teaching methods:

PBL, Lecture(s)

Assessment methods:

Attendance, Assignment

Economic Psychology

Full course description

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

Course objectives

Acquiring a structured insight into the important roles of psychological factors and processes in the judgments, decision-making. Learning about the relations and differences between psychology and economics. Learning about the relevance of the psychological mechanisms behind economic decision-making for law and public policy.

Prerequisites

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

VSS2106

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [P. Werner](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Assignment, Final paper

Entrepreneurship

Full course description

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. 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.

Course 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 entrepreneurship is related to economic development.
- You are able to explain how entrepreneurs link value creation to value appropriation.

Prerequisites

[VSS1101 Introduction to Psychology](#) or [VSS1201 Introduction to Business Administration](#) or [VSS1202 Principles of Economics](#)

Recommended reading

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.

VSS2301

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.A. Carree](#)

Teaching methods:

PBL, Assignment(s)

Assessment methods:

Attendance, Assignment, Participation, Presentation

Performance Psychology in Sports and Business

Full course description

“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... Students will have vast opportunities to decide on what they want to learn about the performance psychological concepts/theories introduced in the course.

Course 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 your interest.

Prerequisites

One psychology course at the bachelor level or in possession of a waiver.

If you want to be eligible for a waiver, you should be highly motivated to follow this course and willing to put in extra effort.

Recommended reading

Some articles will be provided through KeyLinks. However, the majority of articles have to be searched and selected by students themselves.

VSS3101

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [D.C.J. Bartelet](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment

Operations Management

Full course description

This course aims to provide the student with a clear overview of all functions that play a role in running a business, specifically on the operational elements.

The elements of the supply chain of an organization are analysed and optimized with use of data, and this course aims at placing the tools in the right perspective from a managerial point of view. The technical level of the problems consists of high school mathematics and statistics (Mathematics A for the Dutch students).

The set-up of the course is as follows:

In week 1, we introduce business management and discuss business strategy in general.

In the weeks 2-4, we discuss problems on a strategic level such as strategic capacity management and location decisions.

In the weeks 5-6, we discuss problems on the tactical and operational level such as aggregate planning, inventory management, and resource scheduling.

Course objectives

- To acquaint students with operational aspects of organizations, such as planning and scheduling of resources.
- To provide students with hands-on tools to analyse and optimize all aspects of the supply chain of organizations
- To give insight into decision processes of operational management

Prerequisites

- VSC1303 Introduction to Statistical Methods and Data Analysis
- [Introduction to Statistical Methods and Data Analysis](#)

Recommended reading

Stevenson William J. (2018), Operations Management, 12th or 13th (global) edition, McGraw-Hill

VSS3206

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.B.P. Peeters - Rutten](#)

Teaching methods:

PBL

Concentration: Sciences

Food Innovation

Full course description

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 innovative food concepts that are also attractive to consumers. We will work in intensive tasks that will help you to appraise the most important steps for generation of ideas that end up in new food product developments. 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 innovation framework that could help you to reproduce the steps to create food products that can be successes in the market and that provides clear benefits to consumers.

Course objectives

Students can...

- Determine what food innovation entails by recognising food innovations in the market
- Deconstruct in detail the process of food innovation by identifying the factors and drivers to create new food products.
- Outline and justify the steps and decisions that need to be taken to systematically innovate in food by composing a food innovation framework.
- Simulate the use of a food innovation framework by proposing a food product derived from it.

Prerequisites

At least to have taken two of the recommended courses.

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

- [VSC1501 Sustainable Development](#)
- [VSS2101 Psychology of Eating](#)
- [VSC2201 Epidemiology of Food](#)
- [VSC2202 Food and Disease](#)
- [VSC2203 Food Technology and Processing](#)
- [VSC2205 Nutrition and Metabolism](#)

- [VSS3202 Consumer Behaviour](#)

University College Venlo

- [VSC3204 Food Safety](#)
- [VSC3501 Sustainable Food Production](#)

Recommended reading

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

VSC3203

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A.R. Garcia Fuentes](#)

Teaching methods:

Lecture(s), PBL, Skills

Assessment methods:

Attendance, Assignment, Final paper, Written exam

Nutritional Pharmacotherapy

Full course description

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.

Course 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.

Prerequisites

VSC2103 Pharmacology and Toxicology

- [Pharmacology and Toxicology](#)

Recommended reading

- 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

VSC3206

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.F. Vrolijk](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Data Mining

Full course description

Data mining is the process of searching for patterns in data. Data mining has become increasingly important in many areas of science and business, from biomedicine to marketing, due to the increasing ability to generate and store enormous amounts of data.

Data mining makes use of machine learning / artificial intelligence algorithms and statistics, as well as effective use of visualisation techniques and database systems. This course will introduce you to the different aspects of data mining, including

- Data pre-processing and exploration
- Data clustering methods and visualisation
- Data modelling using regression and classification
- Association rule learning

This course will highlight the best practices and common mistakes during the data mining process and provide you with hands-on experience using the popular software program 'R' (www.r-project.org). You will get insights into the theoretical and algorithmic foundations of data mining and its application in real world examples.

Course objectives

- To understand data mining techniques, concepts, and algorithms
- To get hands-on experience with data mining in R
- To learn about common usage scenarios and pitfalls of data mining

Prerequisites

- VSC1303 Introduction to Statistical Methods and Data Analysis

Recommended [VSC2305 Intermediate Statistical Methods and Data Analysis](#)

- [Introduction to Statistical Methods and Data Analysis](#)

Recommended reading

Compulsory: None;

Recommended (online sources):

1. Mohammed J. Zaki, Wagner Meira, Jr., Data Mining and Analysis: Fundamental Concepts and Algorithms, Cambridge University Press, May 2014. ISBN: 9780521766333, <http://www.dataminingbook.info/pmwiki.php/Main/BookDownload>;
2. Daniel T. Larose, Discovering knowledge in data: An introduction to data mining, John Wiley & Sons, Inc. 2005, Print ISBN: 9780471666578, http://rabiee.iauda.ac.ir/design/iaudaostad/http://rabiee.iauda.ac.ir/my_doc/rabieeiaudaacir/D%20M/Larose%20-%20Discovering%20knowledge%20in%20data%20%20-%202005%20.pdf;
3. Trevor Hastie, Robert Tibshirani, Jerome Friedman, The elements of statistical learning: Data mining, inference, and prediction, second edition, Springer Series in Statistics, 2009, ISBN: 9780387848587 http://statweb.stanford.edu/~tibs/ElemStatLearn/printings/ESLII_print10.pdf;
4. Data Mining Algorithms in R, WikiBooks, https://en.wikibooks.org/wiki/Data_Mining_Algorithms_In_R

VSC3301

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.E. Adriaens](#)

Teaching methods:

Lecture(s), PBL, Training(s)

Assessment methods:

Attendance, Assignment, Written exam

Introduction to Statistical Methods and Data Analysis

Full course description

This course is called: "Introduction to Statistical Methods and Data Analysis"! This course is intended to prepare students to deal with solving problems encountered in research projects, decision making based on data, and general life experiences beyond the classroom and university setting. Students will learn statistical concepts and techniques that play a role in summarizing and

describing observed variables, as well as generalizing the statistical results to the entire population. In the first part of the course the focus is on descriptive statistics, in which students will learn how to summarize observed data. During the second part of the course the focus is on statistical hypothesis testing. Lastly, students will get acquainted with basic statistical techniques that are used to analyze observed data.

Recommended

- A mathematical background of at least the VWO (or equivalent) level
- This module is a prerequisite for follow-up modules VSC2305 Intermediate Statistical Methods and Data Analysis
- Knowledge of basic and advanced inferential statistics is a prerequisite for many Dutch Master programmes

Course objectives

- To provide students with advanced knowledge basic inferential statistics

Recommended reading

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

VSC1303

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A. Wesselius](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Introduction to Chemistry

Full course description

From the battery of our phones, the food we eat, to our very thought processes, every aspect of our lives relies on chemistry. This course introduces some key concepts in organic- and bio-chemistry like. We will discuss topics such as the nature of atoms, their electronic structure its chemical consequences; 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, hopefully, proper introduction for those who want to study chemistry but will also help students gain a deeper understanding of biological processes.

Course objectives

- To have an understanding of the nature of atoms, their electronic structure and its chemical consequences, 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.
- To be familiar with the essentials chemicals mechanisms of reaction, using a few relevant examples.
- To have sufficient background for further, more advanced, courses in chemistry, biochemistry and the life sciences.

Recommended reading

Paula Yurkanis Bruice, Organic Chemistry. 8th Edition. 2017. Pearson.

VSC1401

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- J.C. Hanekamp

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Participation, Assignment, Written exam

Pharmacology and Toxicology

Full course description

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.

Course 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.

Prerequisites

VSC1101 Introduction to Biology

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

- [Introduction to Biology](#)

Recommended reading

- 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.

VSC2103

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.F. Vrolijk](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Molecular Biology

Full course description

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.

Course 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

Prerequisites

VSC1101 Introduction to Biology or equivalent.

- [Introduction to Biology](#)

Recommended reading

Molecular Biology of the Cell, Alberts or equivalent books

VSC2104

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [H.E. Popeijus](#)

Teaching methods:

PBL, Lecture(s)

Assessment methods:

Attendance, Written exam

Public Health Policy Making

Full course description

Particularly since the early 19th century state interventions in the field of public health have significantly increased. Examples of state expansion in public health are health laws, health standards on food products, mass vaccination programs, the regulation of the provision and financing of health care and interventions to control the spread of infectious diseases. At the same time, private organizations representing the interests of the food industry, the tobacco industry, the pharmaceutical sector and big tech giants, to mention a few examples, increasingly seek to influence and penetrate into the public health field. These developments have contributed to the transformation of public health systems into what they are today: complex systems directed at the protection and promotion of public health with multiple interests that may coincide but also conflict with each other. The general trend points to a continuous extension of public and private control in public health which evokes pertinent questions about the role of science, morality, politics and

Course objectives

- To give students insight into the relationship between public health policymaking and its environment
- To give students insight into the dynamics of public health policymaking
- To give students insight into the moral, rational, conflictual and institutional dimension of public health policymaking

Prerequisites

[VSC1201 Introduction to Public Health](#) is recommended

Recommended reading

- An e-reader with original articles will be available at the start of the course.
- Manuscript of new book on public health policymaking (forthcoming)

VSC2204

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- J.A.M. Maarse

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Final paper, Written exam

Plant Biology and Agriculture

Full course description

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.

Course 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.

Prerequisites

VSC1101 Introduction to Biology

- [Introduction to Biology](#)

Recommended reading

Original Research Articles.

Botany: An introduction to Plant Biology, Seventh Edition James D. Mauseth - ISBN: 9781284157352.

VSC2207

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [C.M. Padilla Díaz](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Food Safety

Full course description

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 of food products, as well as food authenticity and bioterrorism

Course objectives

Students can...

- Explain, appraise and prioritise biological and legal food safety concepts
- Analyse physical, biological, chemical and allergenic food safety hazards
- Critically evaluate food safety legislation and its implementation
- Reflect on and discuss the interdisciplinary evaluation (based on nutritional, public health and legal insights) of a given food safety issue and provide science-based recommendations how this specific case can be dealt with

Prerequisites

[VSC2013 Pharmacology and Toxicology](#) and/or [VSC1201 Introduction to Public Health](#)

Recommended reading

Original research articles

VSC3204

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A. de Boer](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Final paper, Assignment

Sports Nutrition and Physiology

Full course description

“Sports Nutrition and Physiology” is a cross-disciplinary course during which you will learn how the human body reacts to exercise, which adaptations develop with resistance and endurance training, and how nutrition can be used to accommodate sports performance. During the tutorials, responses of the cardiovascular, respiratory and musculoskeletal systems to a single exercise bout will be discussed. Also, the principles of exercise training and training-related adaptations in various organs and systems will be addressed. Students will acquire knowledge on the process of energy transfer which facilitates muscle work during exercise. They will also build an understanding of the dietary strategies and nutritional supplementation which can be used to support energy supply during

exercise and, thus, enhance performance in various sports. The knowledge obtained during this course will increase one's understanding of why a right balance between nutrition and physical activity is needed to ensure optimal health in recreational athletes.

Course objectives

- To characterize the response to exercise in various organs and systems of a human body
- To understand how training facilitate exercise performance in resistance and endurance athletes;
- To understand how macronutrients maintain energy supply during physical activity;
- To understand the influence of the particular nutrients and dietary strategies on energy metabolism and to elaborate how diet can be used in practice to enhance exercise performance.

Prerequisites

VSC2102 Homeostatic Principles

Prior to starting this course, it is recommended to complete one of the following courses: [VSC2202 Food and Disease](#), [VSC2205 Nutrition and Metabolism](#), [VSC3201 Clinical Nutrition](#)

- [Homeostatic Principles](#)

Recommended reading

The basic textbook for this course is "Exercise physiology: nutrition, energy, and human performance (2015) 8th ed., by McArdle, W. D., Katch, F. I., & Katch, V.L. Philadelphia: Wolters Kluwer". More specific articles will be provided in the course manual.

VSC3207

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Semen](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Sustainable Development

Full course description

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.

Course 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.

Recommended reading

Students are not required to buy a specific book

VSC1501

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.M.T.E. Huynen](#)

Teaching methods:

PBL, Lecture(s)

Assessment methods:

Attendance, Presentation, Written exam

Homeostatic Principles

Full course description

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. At the end of the course it has become clear to the student that all organ systems in the body maintain homeostasis by a joined effort.

Course 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
- Skeletal and muscle function
- Pulmonary ventilation and regulation
- Kidney function
- Fluid and electrolyte balance
- Gastrointestinal fluid resorption and control
- Neuronal-endocrine regulation

Prerequisites

VSC1101 Introduction to Biology

Students should have highschool level knowledge of biology (IB Biology) or follow VSC1101 Introduction to Biology first.

- [Introduction to Biology](#)

Recommended reading

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

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VSC2102

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A.J. Gilde](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Brain and Action

Full course description

Humans 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 anatomy and functions of important neurological structures are examined.

Questions that will be raised during the course are, e.g.: How does the brain develop? How do brain cells communicate? How does the brain control our movement? What happens in Alzheimers or Parkinsons disease? How do environmental factors such as light and food impact our brain? Etc.

Course 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 and functions.

Prerequisites

The course is open for all students, however, a background in biology is recommended

Recommended reading

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

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scientific articles, online resources.

VSC2106

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Semen](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Epidemiology of Food; The Relationship Between Food and Health

Full course description

The foods we consume each day contain thousands of specific nutrients and chemicals. Students will be introduced in nutritional epidemiology by lectures, tutorial groups, practical trainings 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.

Course 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, cardiovascular disease, and mental health disorders

Prerequisites

- VSK1002 Research Methods I
- [Research Methods I](#)

Recommended reading

Willett W. Nutritional Epidemiology. ISBN978 0 19 975403 8. This material is available in the Reading Room, UM-Library

Additional literature will be provided during the course

VSC2201

University College Venlo

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [S.J.P.M. Eussen](#)

Teaching methods:

Lecture(s), PBL, Training(s)

Assessment methods:

Attendance, Assignment, Written exam

Biochemistry

Full course description

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.

Course 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

Prerequisites

VSC1401 Introduction to Chemistry

Recommendation [VSC1101 Introduction to Biology](#)

- [Introduction to Chemistry](#)

Recommended reading

- 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.

VSC2401

Period 4

University College Venlo

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [G.J.M. den Hartog](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Clinical Nutrition

Full course description

In this course, the role of dietary and lifestyle factors to prevent age-related diseases in humans will be considered, as well as underlying mechanisms. In addition, it will be addressed how this knowledge can be translated into different forms of dietary support in a clinical setting. Specific attention will be given to a relevant article discussing dietary intervention trials. Examples from real-life situations will be used, while a visit to the research unit in Maastricht will be scheduled.

Course objectives

- To examine the impact of dietary and lifestyle factors on age-related diseases in humans
- To understand how nutrition prevents diseases by exploring underlying mechanisms
- To critically evaluate a research article discussing dietary interventions in health/disease
- To explore how the impact of diet on health can be studied in a metabolic research unit

Prerequisites

VSC1101 Introduction to Biology.

Recommended [VSC2102 Homeostatic Principles](#), [VSC2202 Food and Disease](#)

- [Introduction to Biology](#)

Recommended reading

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

VSC3201

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

- [P.J. Joris](#)

Teaching methods:

Lecture(s), PBL, Training(s)

Assessment methods:

Attendance, Assignment, Presentation, Written exam

Health Education and Communication

Full course description

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.

Course 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

Prerequisites

[VSS2102 Behaviour Change](#) or [VSS2105 Social Psychology](#)

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

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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.

Recommended reading

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, 4th 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

VSC3202

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [F.E.K. Schneider](#)

Teaching methods:

Lecture(s), Work in subgroups, Assignment(s)

Assessment methods:

Attendance, Assignment, Presentation

Sustainable Food Production

Full course description

This course assumes a basic understanding of the concept of sustainability and related scientific models. We discuss the situation of today's global food production system and analyze the factors that make it unsustainable. We consider different concepts of changing the structure of the system with a distinction between restructuring and disruption. In addition to the lectures, which provide insights into research projects and subject areas, individual models are discussed week after week. Each course participant chooses their own topic to deepen and explains the underlying sustainability model and an application. In addition to a pitch, a written work and a video are made to spread the topic.

Course objectives

This course addresses the challenge of making our global food production sustainable. After attending the course, students should be able to:

- Identify and evaluate factors along the food supply chain that make the system unsustainable.
- Identify and evaluate concepts that support the sustainable development of food production.
- Expressing and presenting recommendations and active support measures for sustainable development in a target group-oriented manner.

Prerequisites

- [VSC1501 Sustainable Development](#)
- [VSC2203 Food Technology and Processing](#)
- OR motivation letter with evidence for knowledge on basic sustainability concepts

Recommendations

Our food system is not designed to adapt to major disruptions like climate change and temporary crisis like Covid 19. But, farmers, entrepreneurs, and academics are rethinking food systems to forge a new path forward. Traditional farming methods like permaculture and using native plants on the one hand and new technologies like CRISPR and vertical farming on the other are promising parts of the solution. Changing our eating habits and implementing alternative proteins in global supply chains are big challenges. There are skeptics about each of these different approaches, but the future of a sustainable food system depends on bringing these ideas together.

- [Sustainable Development](#)
- [Food Technology and Processing](#)

Recommended reading

Mandatory readings :

- Simons L. (2015). Changing the Food Game. Greenleaf Publishing limited.
- Nierenberg D., (2018). Nourished Planet, Sustainability in the global food system, Barilla Center for Food and Nutrition, Island Press.

Recommended books:

- Robertson M. (2017). Sustainability Principles and Practice (2nd.ed.), Routledge.
- De Zwarte I., Candel J. (2020). 10 Miljard Monden. Prometheus Amsterdam.
- Baldwin C.J. (2015). The 10 Principles of Food Industry Sustainability, Wiley Blackwell.
- Collinson P., Young I., Antal L., Macbeth H. (2019). Food and Sustainability in the Twenty-First Century, Berghahn, New York, Oxford.

Original research articles are recommended during the course.

VSC3501
Period 4

University College Venlo

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [W.J.M. Martens](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Presentation

Taste

Full course description

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.

Course 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.

Prerequisites

VSS2101 Psychology of Eating

Recommended [VSS1101 Introduction to Psychology](#)

- [Psychology of Eating](#)

Recommended reading

No compulsory literature

VSS3102

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [R.C. Havermans](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Portfolio

Microbiology

Full course description

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.

Recommendation: Interest in microbiology.

Course 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.

Prerequisites

VSC1101 Introduction to Biology or equivalent.

- [Introduction to Biology](#)

Recommended reading

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

VSC2105

Period 5

University College Venlo

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [H.E. Popeijus](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Chronobiology

Full course description

Rhythms are everywhere. With Earth spinning along its' axes, the moon turning around Earth, and Earth turning around the Sun: organisms are exposed to daily, lunar and seasonal cycles. These cycles have created rhythms at every level of biology. Present in everything from bacteria to plants to humans, ranging from a molecular level to complete behavior. Chronobiology is the scientific field that studies these rhythms; how they work, how they are regulated, how persistent they are, what happens when they are disturbed, how they contribute to health and disease, which behaviors are subjected to them, and more. In this course, these topics will be covered with examples from daily life. The focus will be on the importance of the biological clock: the coordinator of these rhythms. Chronobiology is an interdisciplinary research topic including different model organisms, and an enormous range of involved processes.

Course objectives

- Identify what biological rhythms are, describe them through chronobiological nomenclature and interpret usual chronobiological data presentation
- Recognize the factors that influence biological rhythms in organisms
- Explain the underlying molecular and neurobiological mechanism of circadian rhythms in the human body
- Give examples of which human body functions and behaviors are controlled by rhythms
- Explain how rhythms influence many types of human and animal behavior and apply the underlying theory to explain eating behavior and metabolism
- Experience a hands-on recording of own body rhythms in a basic experiment and learn to present the data and link it to scientific literature
- Defend the most important factors determining sleep behavior after performing a recording of your own sleep and analyzing this through comparing it with literature in a scientific report

Prerequisites

The course is open for all students, however the course has a focus biology so a background in biology is recommended.

Recommended reading

Refinetti, R. (2016). Circadian Physiology. (3rd ed.) Boca Raton: CRC Press.

VSC2107

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinators:

- L.M. Huiberts
- [A. Bast](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Participation, Assignment, Written exam

Food and Disease

Full course description

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.

Course 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

Prerequisites

Recommended

- 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

Recommended reading

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

Basic literature:

- Insel P. - Nutrition - 6th edition - Jones and Bartlett publishers
- Hall, J and Guyton A - Guyton and Hall Textbook of Medical Physiology - 13th edition
- McArdle W.D., Katch F.I., Katch V.L - Exercise Physiology: Nutrition, Energy and Human Performance - 8th edition
- Frayn, Keith N - Metabolic regulation: a human perspective - 3rd edition - Wiley-Blackwell Oxford 2010
- Silverthorn, Dee Unlaub - Human Physiology: An Integrated Approach - 8th edition - Pearson
- Bray, G.A. & Bouchard, C. - Handbook of obesity - 3rd edition

VSC2202

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [E.E. Blaak](#)

Teaching methods:

Lecture(s), PBL, Training(s)

Assessment methods:

Attendance, Assignment, Written exam

Food Technology and Processing

Full course description

All foods consist of a so called matrix in which microbial, enzymatic, chemical and physical reactions will occur during shelf life, processing and/or changing ingredients. The matrix is meant as a manner to describe the structure of a specific food that identifies that type of product.

Adding, removing or replacing ingredients usually will have many effect in the matrix and will lead to changes in the quality of the food, such as for example sensoric quality, nutritional value, shelf life, price, safety attributes.

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 and

affect the quality aspects of foods.

Course objectives

Gain insight in the background of industrial food production, distribution and retail.
Understanding of industrial food preservation and processing.

To gain knowledge of and insight in:

- The safety and shelf life of food products.
- The industrial processing of foods products.
- The functionality of additives used in foods.
- Influence of storage and processing on properties of food.
- Interactions between different components of food.
- How organoleptic and nutritional properties are affected during the processing of raw materials.
- How packaging can contribute to the preservation of food products.

Prerequisites

- VSC1101 Introduction to Biology

Recommended: Highschool level knowledge of biology, chemistry and physics

- [Introduction to Biology](#)

Recommended reading

- Parker, R., & Pace, M. (2017). Introduction to food science & food systems (2nd ed.). Australia: Cengage Learning.

VSC2203

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- H.J. Meijer

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Presentation, Written exam

Intermediate Statistical Methods and Data Analysis

Full course description

During "Introduction to Statistical Methods and Data Analysis" 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 statistical course, this course will guide you through a number of intermediate-level statistics, With You will learn: a) simple and multiple linear regression, b) analysis of variance, and c) logistic regression and d) survival analysis. With these techniques a broad range of statistical analyses of biomedical data can be conducted. In addition, you will learn how to apply these topics using the software program SPSS.

Course objectives

To provide students with advanced knowledge on inferential statistics

Prerequisites

VSC1303 Introduction to Statistical Methods and Data Analysis

- [Introduction to Statistical Methods and Data Analysis](#)

Recommended reading

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

VSC2305

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A. Wesselius](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Healthy Life Cycle

Full course description

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?

Course 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

Prerequisites

[VSC2201 Epidemiology of Food](#) or [VSC2202 Food and Disease](#)

Recommended reading

- Dan Buettner (2008) *The Blue Zones: 9 Lessons for Living Longer From the People Who've Lived the Longest*.
- Additional scientific literature provided by fellow students

VSC3102

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K.G.M. Lenssen](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Final paper

Public Health Implementation and Evaluation

Full course description

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.

Course 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

Prerequisites

[VSS2102 Behaviour Change](#) or [VSS2105 Social Psychology](#)

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.

Recommended reading

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)

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- Evaluation. A systematic approach, 7th edition (2004) by Peter H. Rossi, Mark W. Lipsey and Howard E. Freeman. (Available on campus)
- Diffusion of innovations, 5th 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).

VSC3205

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K.G.M. Lenssen](#)

Teaching methods:

Lecture(s), Assignment(s), Work in subgroups

Assessment methods:

Attendance, Assignment, Final paper, Presentation

Introduction to Biology

Full course description

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.

Course objectives

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

Prerequisites

Students with a highschool level biology background are advised to contact the coordinator prior to

University College Venlo
registering for this course.

Recommended reading

- Eric J. Simon, Jean L. Dickey, Jane B. Reece (2015) *Campbell essential biology with physiology* / . -(5th ed.). Boston : Pearson. OR
- Starr, C., Evers, C. A., & Starr, L. (2021). *Biology : today and tomorrow : with physiology* (6e ed.). Cengage.

VSC1101

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Semen](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Introduction to Public Health

Full course description

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 to provide 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 be aimed 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 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 nutrition-related public health challenge and you report your findings in a report and a mini symposium.

Course objectives

- To provide students with knowledge and understanding of what Public Health encompasses; 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 their knowledge

and understanding about Public Health; they will also have developed basic skills on how to use available evidence 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.

Recommended reading

- Detels, R. , Gulliford, M. , Abdool Karim, Q. , & Tan, C. C. (2021). Oxford textbook of global public health (7th edition).
<https://doi.org/10.1093/med/9780199661756.001.0001/med-9780199661756>
- Specific literature that is available in an e-reader

VSC1201

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [D.F.L. de Ruijter](#)

Teaching methods:

Lecture(s), PBL, Work in subgroups

Assessment methods:

Attendance, Assignment, Written exam, Final paper

Nutrition and Metabolism

Full course description

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.

Course 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.

Prerequisites

VSC1101 Introduction to Biology or equivalent

- [Introduction to Biology](#)

Recommended reading

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

VSC2205

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.F. Vrolijk](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Written exam

Gut Microbiology

Full course description

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.

Course 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.

Prerequisites

VSC2105 Microbiology

- [Microbiology](#)

Recommended reading

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.

VSC3101

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Venema](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Humanities

History of Discovery and Innovation

Full course description

Why do specific people in certain social contexts come up with novel explanations of the world? To what extent does technological change explain historical and scientific progress? How has the nature of discovery changed over the course of history? What determines the consequences of new ideas? How do scientific innovations relate to other societal institutions, such as religion, the economy, and the state? This course will explore these and related questions by analyzing the dynamic relationships between scientific thought, technological innovations, and broader social contexts of religion, art, politics, and morality. We will do this by paying attention to both large, structural changes in scientific institutions as well as micro-histories of particular discoverers and innovators credited with developing new theories, technologies, and ways of thinking. We will cover: medical science in early China; Pacific Islander navigation techniques; the rise of experiments as a basis of knowledge; the contributions of Arabic science to the scientific revolution; developments in knowledge on the age of the earth; the relationship between machines and social class; the role of gender in the making of modern science; and, other related topics. At the same time, we will learn about 'the history of history', or what historians call historiography. With a focus on issues of science and technology, we will cover different approaches to history and discuss how these different approaches afford us different types of understandings of the past. Throughout the course, we will utilize theories and concepts from history and philosophy of science, science and technology studies, cultural studies, historiography, and related disciplines to learn diverse answers to our guiding question: What is the history of scientific and technological change?

Course objectives

Identify and analyse key theories and debates in historiography ;

- Understand key historical explanations of scientific and technological change ;
- Interpret primary and secondary historical sources ;
- Apply historiographical insights to analyze the political, cultural, and economic contexts of scientific and technological change

Recommended reading

E-Reader consisting of primary and secondary sources

VHU2002

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.T. Kiefer](#)

Teaching methods:

PBL

University College Venlo

Assessment methods:

Attendance, Assignment, Final paper

Sustainability and Social Justice

Full course description

This course will explore the relationship between environmental sustainability and social justice. We will explore the historical development of discourses and actions including but not limited to environmental justice, sustainability, and resilience. Through these theories and discourses, we will explore the possible tension between economic growth and environmental degradation, analyze environmental movements, and evaluate claims made by researchers, activists, and politicians about the connections between environmental harms and social factors such as gender, class, age, and race. To do so, we will make use of a broad range of disciplines, including philosophy, economics, sociology, urban studies, and environmental studies. Specifically, we will look at the social contexts and impacts of environmental problems such as waste management, land use, air quality, flooding, food security, and climate change.

Course objectives

Through this course, students will:

- Learn to identify key theoretical approaches to studying socio-environmental problems;
- Critically evaluate claims and research regarding environmental justice;
- Apply key concepts to analyze and make sense of environmental problems in every-day life;
- Understand the contingent nature of social responses to environmental problems.

Recommended reading

E-reader

VHU2001

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.T. Kiefer](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Final paper

Digital Media and Culture

Full course description

Students in this course will be introduced into the broad field of digital media and culture and discuss in detail computer based practices (both from the humanities and qualitative social sciences). The topics discussed range from transformations in our digital cultures based on technological developments from societal debates to user practices and ethical considerations in the context of new emerging technologies. While popular debates usually focus on general discussions on the impact of digital technologies, this course will deal with the complexity and diversity of our contemporary culture.

Over the course of the past decades digital devices have become omnipresent in our societies. Every day we type on computers, make calls with our mobile phones, log in to numerous websites and social networks. Perhaps more importantly, we are able to keep extensive, precise records of our everyday lives. From internet cookies, tracking apps to video camera surveillance feeds, along with the information users, companies and governments store in clouds, more and more data is generated and archived. In the digital age, information circulates faster and faster, sometimes without the knowledge of the parties from which the data originate. The consequences have been differently valuated. The optimistic account stresses the new media's inherent possibilities for active cultural and social participation beyond the reach of existing political or commercial institutions. Participation is a term discussed when we follow discussions about the use of social media to support processes of democratisation.

When we investigate the use and abuse of user data and surveillance strategies both from governments and marketing institutions exploitation of users is central in the debate. We willingly help to spread information on social media, often without an awareness of the politics involved. The cultural transformations of and through digital technologies, the impact they have on their users and ways users shape digital technologies will be investigated in this course.

Course objectives

The aims of this course are to familiarize students with topics relevant for digital culture and society such as:

- Different uses of digital media in the fields of mHealth apps, work and play, surveillance technologies, synthetic media such as Deepfakes, AI and robotics.
- The relation between technological development, user practices, ethical questions, and technomoral change as e.g., participation, use of blockchain, etrash and sustainability.
- Relevant topics related to digitalization as e.g. ethics, surveillance and privacy will be discussed.

Recommended reading

The literature is available Online and via the reference list of the University Library.

VHU1002
Period 4
6 Feb 2023

University College Venlo

7 Apr 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Wenz](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Presentation, Final paper

Ethics

Full course description

We live in a fast-paced and ever-changing world in which scientific and technological practices raise many ethical concerns. Building on the theme that science and technology have both beneficial and detrimental aspects, this course explores the ethical dimensions of a multitude of scientific and technological practices and innovations such as food technologies, cloning, genomics, synthetic biology, nanotechnology and big data analyses. We will focus on both current ethical controversies in science and technology as well as long-standing debates. We will ask and discussion questions such as, should research be conducted on animals, and if so, under what conditions? What ethical issues arise as a result of our increasing use of computers? What are scientists' responsibilities regarding risky technologies? To what extent, and how, should the public be involved in scientific practices? Instead of providing easy answers to these questions, this course will provide concepts and theories for thinking about ethical issues systematically and coherently, and for developing justifiable positions about them.

Course objectives

Students will:

- Critically analyze the social, economic, and environmental factors that influence the ethical dimensions of scientific research and technological innovation
- Understand key ethical frameworks and apply them to practical concerns and problems of science and technology
- Develop and defend positions regarding the ethics of scientific discoveries, scientific research, and the use of a variety of new and emerging technologies

Recommended reading

- The Ethics of Invention, by Sheila Jasanoff
- E-Reader

VHU1001

Period 5

10 Apr 2023

9 Jun 2023

University College Venlo

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.T. Kiefer](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Final paper

Projects

Projects

Research Methods II: Applied Academics

Full course description

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, understand and appreciate basic research material.

Course 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 and intervention 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.
- is able to critically appraise an intervention study

2. Application of knowledge and insight:

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

Recommended reading

- 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

VPR1003

Period 3

9 Jan 2023

3 Feb 2023

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [B.A.J. Verhage](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment, Written exam

Research Methods II: Lab Skills

Full course description

Research Methods 2: Lab Skills (a.k.a. Lab Skills 1) is a 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) and Safe Laboratory Practice (SLP), in order to answer their scientific research questions. You will become familiar with accurate measurement of volumes and weights, preparation of chemical solutions, use of basic laboratory techniques, keep your findings in a journal, and reporting your results.

Course objectives

Students can...

- Identify laboratory equipment and materials that are commonly present in a laboratory.
- Use the laboratory equipment and materials with precision and efficiency.
- Apply the safety and good laboratory practices in the development of scientific experiments across all the practical sessions.
- Conduct laboratory experiments with precision, accuracy and professionalism demonstrated through use and execution of basic laboratory techniques.

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- Assess and conclude over experiment's results to outline coherent conclusions.

Prerequisites

Recommendation: VSC1401 Introduction to Chemistry

Recommended reading

Literature will be provided for each task individually. Besides, you will need to look for your own sources.

VPR1004

Period 3

9 Jan 2023

3 Feb 2023

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

5.0

Coordinators:

- [K.J.P. Verhees](#)
- [A.R. Garcia Fuentes](#)

Teaching methods:

Skills

Assessment methods:

Attendance, Assignment

Academic Debate

Full course description

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. The debate topics will be centered around the issues that emerge out of a wide range of UCV courses from different concentrations taught during the academic year. There will be a "yes" (pro) and a "no" (con) team, which will build their argumentation strategy and prepare to refute arguments of the opponents throughout the project in order to win a debate. 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. In the end, it will be 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.

Course objectives

- To equip students with essential debating and communication skills.

University College Venlo

- To introduce students to the practice of speaking in a public setting.
- To practice argumentation skills.

- To gain expertise on a topic of choice (the debate topic).

Recommended reading

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.

VPR2002

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K. Semen](#)

Teaching methods:

Lecture(s), PBL, Skills

Assessment methods:

Attendance, Final paper, Assignment

Interviewing

Full course description

Whether it is for diagnose someone or trying to understand people's behaviour or success, interviews can be a rich source of information. However, when is a specific type of interview the best fit for the purpose that you have in mind? How to conduct such an interview? And what to do with all the information that you have gathered? This project will introduce you to a selected number of interview techniques, that can be used in different settings, focussing on motivational interviewing, scientific interviewing and will shortly address medical/psychological intake interviews. Within workshops, you will practice to conduct and analyse different interviewing techniques. This project aims to inspire you to make optimal use of interviews in future work.

Course objectives

- Recognise when to use which conversation technique;
- Connect conversation techniques to various purposes;
- Recognise and explain different interviewing formats for different purposes;
- Organise and interpret the data gathered through interviews;
- Novice level application of basic and more advanced interview techniques in order to retrieve the required information.

Prerequisites

This course is for students with a background or sincere interest in interviewing for different purposes: both for medical and psychological studies, as well as for the purpose of conducting qualitative research.

Recommended reading

Materials available on Student Portal.

VPR2005

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

5.0

Coordinators:

- [A. de Boer](#)
- [K.G.M. Lenssen](#)

Teaching methods:

Training(s)

Assessment methods:

Attendance, Assignment

Deep Reading

Full course description

In this project students will engage in the 'deep reading' of a provided seminal, influential or otherwise significant text related to the social sciences, natural sciences and/or humanities. Rather than selectively skimming for facts or speed-reading for summaries, the process of deep reading means slowing down, re-reading and even stopping periodically to more fully contemplate specific pages or passages. 'Deep reading' is a process of slow, thoughtful and deliberate reading through which the reader actively works to critically contemplate, understand and ultimately enjoy a particular text to the fullest extent possible. Having considered and recognized what a text says, deep reading asks us to also reflect upon the broader intellectual, scientific, social, cultural or political implications of the text. Students will work through the processes of deep reading individually and collaboratively through individual, partner and group-based deliberation/discussion.

Course objectives

- Students recognize what the basic principles of deep reading are.
- Students implement deep reading principles when reading a seminal text linked to a scientific field.
- Students individually author a critical book review.

Recommended reading

A single seminal text/book (classic or contemporary) will be assigned by individual tutors.

VPR2006

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [S.M.F. Akin](#)

Teaching methods:

PBL, Work in subgroups

Assessment methods:

Attendance, Assignment, Final paper

Think Tank

Full course description

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. 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 of ThinkTank 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 and share their recommendations with the client.

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 to obtain the required information. Depending on their academic background and skills, students will divide the workload and take on specific roles within the ThinkTank.

Course 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').

Prerequisites

One of the following modules:

- [VSK2001 Argumentation](#);
- [VPR2002 Academic Debate](#);
- [VSC1303 Introduction to Statistical Methods and Data Analysis](#) (or [VSC2305 Intermediate Statistical Methods and Data Analysis](#));
- [VSC2204 Public Health Policy Making](#).

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.

Recommended reading

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

VPR3002

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

5.0

Coordinators:

- [K.G.M. Lenssen](#)
- [M.T. Kiefer](#)

Teaching methods:

PBL, Work in subgroups, Working visit(s), Assignment(s)

Assessment methods:

Attendance, Assignment, Presentation

Project Management

Full course description

The importance of project management nowadays cannot be overstated. Introducing an innovative product in the market, organising a music festival or developing a new software tool... these are all complex, interdisciplinary and time-constrained activities that can easily go off tracks and struggle with out of control budgets. Good project management helps teams to deliver on time and within budget, improves internal communication as well as communication with the stakeholders outside of the team and leads to better business decisions. Due to decreased time-to-market and the tendency towards flatter and leaner organisations, good project management skills have become increasingly important. In this course you will learn the essentials of project management and apply them in your own project. You will experience how it is to operate in a real project, monitor quality, time and money goals and deliver results.

VPR3004

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- G.P.M. Poppe

Writing a Research Proposal

Full course description

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).

Each session will focus on the conventions and requirements for writing a specific section of the proposal, along with guidelines on the effective use of academic English in writing a research proposal.

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

Course objectives

At the end of this project:

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1. Students will be 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 will have improved relevant soft skills (planning, communication, as well as providing and processing peer feedback).

Prerequisites

- VSK2004 Academic writing

Recommended: VSK2001 Argumentation

- [Academic Writing](#)

Recommended reading

No essential reading list is provided. Depending 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.

Nevertheless, the following are 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

VPR2001

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- A.J. Simpson

Teaching methods:

Skills, Research, Presentation(s)

Assessment methods:

Attendance, Assignment, Presentation

Strategic Marketing and Practice

Full course description

In an increasingly dynamic environment companies require a capacity to continuously learn about and swiftly respond to markets. Fundamental to this is the customer perspective, the recognition that company success comes from delivering superior customer value. Marketing traditionally has advocated the customer focus; yet, today, marketing needs to take on a more strategic, coordinative role within the firm to craft more interactive strategies when it comes to consumers and partners. Thus, it is imperative for both marketing and non-marketing specialists to grasp how marketing helps the firm design strategies starting from the customer. The course Strategic Marketing and Practice focuses on designing strategies from the market back to create, deliver, and sustain customer value in competitive and dynamic markets. To do so, this course deals with a comprehensive investigation and analysis of all major components of marketing strategy and their integration. This course takes a business-oriented setup by focusing on real life examples/cases and by allowing students to participate in a market simulation game. The objective of the simulation is to put into practice the concepts related to marketing strategy and the marketing mix in a risk-free environment.

Course objectives

In this course we will take the viewpoint of the Chief Marketing Officer (CMO). A CMO is not simply an implementer but rather a maker of organization strategy. More specifically, a CMO is expected to be a leader in defining the mission of a business, in analyzing competitive market situations, in developing business objectives and goals, and in defining customer value propositions and marketing strategies that create value for a business unit as a whole. Hence, we will use this perspective to address the issues of (1) defining and developing the strategic goals of the organization; (2) identifying organizational growth opportunities through customer and market analysis (3) formulating product-market strategies; and (4) budgeting marketing, financial and production resources.

Recommended reading

- Palmatier, R. W., & Sridhar, S. (2017). Marketing strategy: Based on first principles and data analytics. Macmillan International Higher Education.
- Academic articles

VPR2004

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [M.J.H. van Birgelen](#)

Teaching methods:

Training(s)

Assessment methods:

Attendance, Assignment

Science Communication Mini-Documentary

Full course description

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.

Course objectives

Students are able to...

- List the basic theoretical underpinnings of making a documentary.
- Identify the concept of science communication and the challenges of proper communication for different audiences.
- Construct a brief and a plan to produce a documentary.
- Implement practical skills on filming and editing to develop quality footage.
- Communicate scientific knowledge critically, correctly, and accessible to a broad audience through the production of a mini-documentary.
- Judge a journalistic communication of a scientific topic to determine the actual facts behind it.

Recommended reading

Literature will be provided accordingly during the progress of the project. Besides, students are encouraged to search for their own resources.

VPR3003

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [A.R. Garcia Fuentes](#)

Teaching methods:

Training(s)

Assessment methods:

Attendance, Assignment

PEERS - Undergraduate Research III

Full course description

UCV PEERS is a semester research programme carrying 10 ECTS. In the period 4 and 5, PEERS is delivered in the skill format while during period 6 it gets transformed to the full time research project. This set-up ensures that PEERS students increase their proficiency in all steps involved in conducting research, from writing a research proposal and making choices about the study methodology to communicating the results of their project. 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.

Course objectives

- To further develop research skills starting from conceiving the good research question, identifying correct methodology to answer it, to actually conducting the study, analysing data and reporting the results to scientific community.
- To emphasize the ability to identify and formulate academic problems.
- To become aware how various research methodologies provide answers and may initiate new ideas.
- To enhance the learning experience of students by integrating research into their undergraduate curriculum.
- To reinforce the awareness of how academic work relates to the needs of society.

Prerequisites

VSK3101 PEERS - Undergraduate Research I and VSK3102 PEERS - Undergraduate Research II

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

- [PEERS - Undergraduate Research I](#)
- [PEERS - Undergraduate Research II](#)

Recommended reading

Project-specific literature will be used

VPR3103

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

5.0

Coordinators:

University College Venlo

- [C.M. Padilla Díaz](#)
- [K. Semen](#)

Teaching methods:

Research, Work in subgroups

Assessment methods:

Attendance, Presentation, Final paper

The Applied Researcher III

Full course description

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 after acquiring additional analytical skills in R and communicating the findings of the research project in a written research article that is of sufficient quality to be submitted to the UCV journal.

Course 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 (analyzing own data, writing and evaluating own research).
- Students have gained experience in critically analysing a research study
- Students have become acquainted with presenting their research and answering critical questions.

Prerequisites

VSK1000 The Applied Researcher I, VSK1004 The Applied Researcher II

- [The Applied Researcher II](#)
- [The Applied Researcher I](#)

Recommended reading

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

VPR1002

Period 6

12 Jun 2023

7 Jul 2023

University College Venlo

[Print course description](#)

ECTS credits:

5.0

Coordinator:

- [K.G.M. Lenssen](#)

Teaching methods:

Lecture(s), Work in subgroups, Training(s), Research

Assessment methods:

Assignment, Attendance, Presentation, Take home exam

Skills

Skills

Introduction to Academic Skills

Full course description

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 at university. From scientific curiosity to critical thinking, we will explore all the characteristics that make us academic colleagues and how that differentiates from other scientific areas. After this skills training, you will be equipped with a unique set of skills that you will practice along your career. We will use various educational formats including lectures, workshops, in class discussions and peer-feedback.

Course objectives

Students are able to:

- Identify and explain the ethic and core skills that are part of an academic and the difference with applied sciences.
- Theorise on a specific topic and draw up a thesis statement and an argument structure.
- Apply a structured approach to research and gather scientific literature from databases.
- Communicate through academic writing of a researched theoretical topic with appropriate referencing.
- Provide, receive and make use of feedback through the peer-review process.
- Avoid committing plagiarism and other cases of intellectual theft on their own academic work to prevent fraud.

Recommended reading

- Advised: Fowler, H. R., & Aaron, J. E. (2015). *The Little Brown Handbook* (13th ed.). New York: Pearson Longman. (Earlier editions can also be used)..
- Additional: Additional Literature may be found in the reference list.

VSK1001

Period 1

University College Venlo

5 Sep 2022

28 Oct 2022

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [A.R. Garcia Fuentes](#)

Teaching methods:

Training(s), Skills

Assessment methods:

Assignment, Attendance

Argumentation

Full course description

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

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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).

Course 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.

Prerequisites

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

Recommended reading

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

VSK2001

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [M.T. Kiefer](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment

Lab Skills 2

Full course description

Lab Skills 2 is a course that originates scientific curiosity in the student. It builds on top of different science courses in the UCV curriculum and stimulate to answer research questions on different topics using advanced laboratory techniques. This creates an environment that gives the opportunity

to formulate your own research questions regarding a specific problem to develop a protocol that makes use of 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.

Course objectives

Students can...

- Analyse a problem and formulate research questions that involve lab experiments.
- Write a protocol and planning of the activities to be executed in the lab to answer the research questions.
- Conduct laboratory experiments with precision, accuracy and professionalism demonstrated through use and execution of advanced laboratory techniques and proper registration of procedures in the lab journal.
- Assess and conclude over experiment's results to answer a given research question and outline the conclusion in a scientific report.

Prerequisites

None

Recommended [VSC1401 Introduction to Chemistry](#)

Recommended reading

Literature will be provided for each task individually. Besides, you will need to look for your own sources according to the research question.

VSK2002

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [A.R. Garcia Fuentes](#)

Teaching methods:

Skills

Assessment methods:

Attendance, Assignment

Academic Writing

Full course description

This course is designed to assist students in polishing their academic 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 very basics of writing or grammar. Rather, this skill's training course will focus on advanced levels of different types of writing to help students look deeper into style while writing in grammatically correct English, and re-visit successful means of argumentation in an academic context.

Course 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 (individual) and write a research proposal (individual)
- 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
- Practise how to cite properly together with how to write proper references
- Give and receive feedback on academic writing.

Recommended reading

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

VSK2004

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.5

Coordinators:

- A.J. Simpson
- [S.J. Hiley](#)

Teaching methods:

PBL

Assessment methods:

Attendance, Assignment, Final paper

Presentation Skills

Full course description

Students will study and practice different aspects of an academic presentation. All students will give

a number of presentations and work on various elements of presentations in different workshops, in particular outline, content and the final delivery. In the first meeting, 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 learn how to structure a scientific presentation and 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 to different types of audience, both at UCV and as part of a future job or master programme.

Course objectives

Students...

- Can prepare and 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.

Prerequisites

Recommendations

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

Recommended reading

Learning materials are provided at StudentPortal

VSK2005

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [A. de Boer](#)

Teaching methods:

PBL

Assessment methods:

Attendance, Presentation, Assessment

Clinical Lab Skills

Full course description

Clinical Lab Skills introduces basic techniques which are used in clinical practice to assess functions of the organ and systems of the human body. During the training, you will learn how to perform basic anthropometric measurements in humans, which methods can be used to assess body composition, how cardiovascular function and fitness level can be measured. Furthermore, students will build expertise on basic interpretation of electrocardiogram, heart rate variability and lung function testing. During the tutorials importance of the informed consent process and application of the Good Clinical Practice in the studies involving human participants will be discussed. At the end of the skill, training students will improve their abilities and skills to perform clinical research.

Course objectives

- To apply main principles of Good Clinical Practice in clinical research;
- To perform and assess basic anthropometric and cardiorespiratory measurements;
- To understand basics of electrocardiography, spirometry, exercise testing;
- To perform a basic evaluation of electrocardiogram and spirogram;
- To perform a basic assessment of the exercise tests.

Recommended reading

No compulsory literature will be requested for this course.

VSK2006

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [K. Semen](#)

Teaching methods:

Work in subgroups, Training(s)

Assessment methods:

Attendance, Assignment

Research Methods I

Full course description

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 exposure and outcome measures fitting the hypotheses and what this means for internal and

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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.

Course objectives

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

Recommended reading

- Kumar R. Research Methodology - a step-by-step guide for beginners. ISBN9781446269978
- Additional literature will be provided during the course
- Material is available in the Reading Room, UM-Library, as E-reader or as Online Sources.

VSK1002

Period 2

31 Oct 2022

23 Dec 2022

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

2.5

Coordinators:

- [S.J.P.M. Eussen](#)
- [K. Drosinou](#)

Teaching methods:

Skills, Lecture(s)

Assessment methods:

Attendance, Assignment, Final paper

Lab Skills 3

Full course description

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.

Interest in biology and laboratory experiments is recommended

Course 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

Prerequisites

- [VPR1004 Research Methods 2: Lab Skills](#) or equivalent **OR**
- [VSK2002 Lab Skills 2](#)

- [Research Methods II: Lab Skills](#)

Recommended reading

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

VSK2003

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [H.E. Popeijus](#)

Teaching methods:

Skills

Assessment methods:

Attendance, Assignment

Leadership Skills

Full course description

The idea that leadership is an innate quality that is possessed only by a few people in the world, is not considered valid anymore. In truth, leadership can be studied and learnt through discussion, exercises and being open to different opinions. In which situations is what type of leadership required? How are group dynamics influencing leadership? What skills are necessary for a leader? And what about your personal skills: which skills do you want to (further) develop and what aspects suit you less? Which leadership style is most effective for you? This skills training is aimed to inspire you and further develop your personal leadership skills and is relevant for students at any level of leadership skills development.

Course objectives

At the end of the skills-training, students

- can distinguish different leadership styles and reflect on their own style of leadership
- have recognized the interrelationship between organizational culture and leadership and reflect upon their own leadership behaviour in groups
- have identified some of their personal VABEs (values, assumptions, beliefs and expectations)

and reflected upon how they influence their communication as a leader

- can execute effective verbal and non-verbal active listening skills and reflect how their ability to listen affect their leadership skills
- can differentiate between conflict styles and have discovered their personally preferred conflict style with its advantages and pitfalls.
- can reflect on ethical leadership and appraise the value of authenticity and charisma for ethical leadership behaviour

Recommended reading

Materials available on Student Portal.

VSK2009

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [A. de Boer](#)

Teaching methods:

Training(s)

Assessment methods:

Attendance, Assignment, Portfolio

Creativity & Concept Development of New Business

Full course description

A key role of corporate R&D-labs is to translate novel technology into new products and new business. Customer feedback may also trigger product and business development. Envisioning how novel technology can be used to develop and market new products is an inherently creative process that should not only be mastered by business developers, but also by scientists and technologists. This course is focused on developing your competence at two important tasks for the creation of new business: [1] discovering (technological) opportunities, [2] developing product, business concepts and business models. Creativity plays an important role in several, if not all, aspects of what makes organisations work and flourish. Creative problem solving is therefore an essential skill for those that expect to find employment as scientists in industry and academia. It is also valuable to those that eventually may become corporate or self-employed entrepreneurs. During this skills course we will touch upon important aspects of creative problem solving. But, most of all, we will provide you with insights that will help you to develop your own creative skills. The starting point of the training is our belief that creativity is an ability that, to a certain extent, can be learned and trained. We will follow different paths to help you investigate your own creativity skills and to find the best way to improve them.

Course objectives

- To be able to apply creativity techniques to problem solving
- To understand how creativity can be used to transform technology into product concepts.
- To be able to draft business concepts and business models that result from technology product ideation.

Recommended reading

Reader with papers & cases

VSK2010

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [R.P.M.G. Broersma](#)

Teaching methods:

Work in subgroups, Training(s)

Assessment methods:

Attendance, Assignment, Final paper

Integrated Assessment

Full course description

An interdisciplinary study skill in Integrated Assessment methodologies and concepts as an approach to address complex societal issues associated with the challenge of sustainable development.

Integrated Assessment is an iterative, continuing process, where integrated insights from the scientific and stakeholder communities are communicated to the decision-making community, and experiences and learning effects from decision-makers form one input for scientific and social assessment. This complex, intuitive, and value-laden process operates at a variety of levels and scales. Multiple diverse approaches are needed, varying from analytical methods (such as Integrated Assessment models) to participatory methods (such as focus groups).

Theory is mixed with practice through lectures, discussions, IA sessions and games.

Course objectives

- Understand the concept of Integrated Assessment (IA)
- Understand how various IA tools and methods are used
- Get hands-on experience in using several IA tools (e.g. models, scenarios, games)

Recommended reading

All material (problem descriptions and supporting literature) will be provided during the course and made available through the Student Portal. There is no specific textbook.

VSK2012

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [W.J.M. Martens](#)

Teaching methods:

Lecture(s), Skills, Research

Assessment methods:

Attendance, Assignment

The Applied Researcher I

Full course description

The Applied Researcher I is the first part of a three period research project, in which student groups will work on a research problem provided and supervised by a UM researcher. Before the start of the project students are given the opportunity to designate their preference for a specific problem. Studie fields include e.g. Food Innovation, Psychology, Public Health, Marketing/Health Claims,.... The problems provided challenge students to study an issue that is still not fully understood and the answer to the problem has applied implications.

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).

Course 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 analyzing 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, teamworking).

Recommended reading

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.

VSK1000

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [K.G.M. Lenssen](#)

Teaching methods:

Lecture(s), Research, Work in subgroups, Presentation(s)

Assessment methods:

Attendance, Assignment

Risk Communication & Crisis Management

Full course description

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 behavioral 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.

Course objectives

1. During this skills training, students will learn to approach risk communication from different disciplines:
2. risk assessment
3. risk psychology
4. sociology

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

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VSK2007

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- J.C. Hanekamp

Teaching methods:

Skills, Training(s)

Assessment methods:

Attendance, Assignment

Influencing and Negotiation Skills

Full course description

This course is aimed at developing analytic and communication skills that are necessary for successful negotiations. Students will learn different negotiation styles and models, and will use these to develop skills across three stages of negotiation: preparation, negotiation, and evaluation. The course will encourage students to approach conflicts and disagreements as possible win-win rather than zero-sum scenarios, and students will learn specific techniques in pursuit of this goal. For instance, students will develop skills to best prepare for negotiations, facilitate negotiation processes, bargain with difficult partners, and manage cross-cultural elements of conflicts.

Course objectives

- To develop effective negotiation skills to achieve integrative, 'win-win' outcomes
- To identify negotiation strategies and learn how and when to apply them
- To navigate diverse and challenging personalities, communication styles, and differences in bargaining power

Recommended reading

- Fisher, Roger, William Ury and Bruce Patton. 2012 (1999). *Getting to Yes: Negotiating Agreement Without Giving In*. Random House Business.
- Diamond, Stuart. 2018 *Getting More: How You Can Negotiate to Succeed in Work and Life*. Currency.
- Voss, Chris and Tahl Raz. 2016. *Never Split the Difference: Negotiating as If Your Life Depends on It*. Harperbusiness.

VSK2011

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

University College Venlo

2.5

Coordinator:

- [M.T. Kiefer](#)

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Assignment

PEERS - Undergraduate Research I

Full course description

See description [VPR3103 PEERS - Undergraduate Research](#)

Prerequisites

The PEERs project is preferably done during the second year (or the third year) of your study programme. PEERs should only be chosen by students with a high interest for research.

VSK3101

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

2.5

Coordinators:

- [C.M. Padilla Díaz](#)
- [K. Semen](#)

Teaching methods:

Research, Work in subgroups

Assessment methods:

Attendance, Presentation and paper

The Applied Researcher II

Full course description

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 developing analytical skills using the program R.

Course 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.
- Students are able to conduct some basic descriptive and inferential statistics using R.

Prerequisites

VKS1000 The Applied Researcher I

- [The Applied Researcher I](#)

Recommended reading

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

VSK1004

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [K.G.M. Lenssen](#)

Teaching methods:

Lecture(s), Research, Work in subgroups

Assessment methods:

Assignment, Attendance

Visualization and Data Storytelling

Full course description

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.

Course 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.

Recommended reading

- Storytelling with data: a data visualization guide for business professionals, Cole Knaflic, Wiley, 2015, Hoboken, New Jersey, ISBN:1119002257
- The Visual Display of Quantitative Information, Edward R. Tufte, Graphics Press, 2001, Cheshire, Conn, ISBN:9780961392147
- Tamara Munzner: Visualization Analysis & Design, CRC Press, Boca Raton USA, 2014

The required books for this course can be found in the Campus Venlo Library. All literature may also be accessed via the [Keylinks Learning Resources](#).

Alternative resources may be found via the University Library: <http://library.maastrichtuniversity.nl/>

VSK2008

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- K.M. Schröder

Teaching methods:

Lecture(s), Training(s)

Assessment methods:

Attendance, Assignment

Digital Professional Communication

Full course description

Whatever your background, you need to deliver compelling messages both on- and offline to enhance your professional development. Professional communication practices used to consist primarily of written, verbal or oral communication. But in an increasingly digitalized world another form of communication has become indispensable: digital professional communication. The digital world is

somewhat similar but also somewhat different compared to the real world. People have access to an enormous amount of information online, so you need to know how you stand out. In addition, not all information that is available is factually true, so it is important to know how to critically assess the information that you read online. This is all part of the skills course 'digital professional communication'.

The following questions will be addressed in this course. What is professional communication? And what makes digital professional communication different to the other forms? How does it affect that people communicate and interact? How can we use them effectively? E.g. how should a professional text look like and how can we use social media in a professional manner? What are the pitfalls and challenges in digital communication? And which type of digital communication is going to be effective for your personal professional development? In this skill training you will gain insight into the changing landscape of professional communication and how to navigate through this. Students will get practical skills related to writing, designing and critical reading. In addition, students will learn to think about their impact and personal brand in the digital world.

Recommended reading

Students are provided with workshops in which suggested readings are provided.

Additionally, students should read popular science articles to get familiar with the used writing styles.

VSK3004

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

2.5

Coordinator:

- [K.G.M. Lenssen](#)

Teaching methods:

Assignment(s), Training(s)

Assessment methods:

Attendance, Assignment

PEERS - Undergraduate Research II

Full course description

See description [VPR3103 PEERS - Undergraduate Research](#)

Prerequisites

VSK3101 PEERS - Undergraduate Research I

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

programme. PEERs should only be chosen by students with a high interest for research.

- [PEERs - Undergraduate Research I](#)

VSK3102

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

2.5

Coordinators:

- [C.M. Padilla Díaz](#)
- [K. Semen](#)

Teaching methods:

Research, Work in subgroups

Assessment methods:

Attendance, Presentation and paper

Capstone

Capstone

Capstone

Full course description

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 that you have followed at UCV. Capstone is the culmination of a student's academic work at UCV and is comparable in function to a bachelor thesis.

During this module students will work on writing a proposal in which they formulate their individual goals and determine a topic and format appropriate to their topic; students will independently search for a capstone/ research advisor; students will conduct the research primarily themselves; and their findings are going to be presented in a final piece of work (capstone). The capstone can take on a variety of forms and is not confined to a traditional research article/paper.

Course 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.

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- 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.

Prerequisites

Students should have at least 140 ECTS at the start of Capstone.

Recommendations

Participating in Capstone is doable, but demanding. Therefore, having a higher workload beyond regular due to e.g. additional courses, skills trainings and projects is not recommended.

Recommended reading

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

VCA3000

Semester 1

5 Sep 2022

3 Feb 2023

Semester 2

6 Feb 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

20.0

Coordinators:

- [K. Semen](#)
- [M.A. van den Heuvel](#)

Teaching methods:

Assignment(s), Coaching, Research

Assessment methods:

Final paper, Presentation, Portfolio