# **University College Venlo**

Core courses

# **Core Courses**

# University College Venlo World Orientation: An Introduction to Cultural Studies

## **Full course description**

This course takes an approach that surpasses boundaries between disciplinesand methods, problems and perspectives. We will focus on understanding how culture and cultural differences contribute to some of the current problems and phenomena observed insix 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 influenceculture and identity? Why are some people so persistent in using non-western forms ofhealing/ treatment within a biomedical treatment dominated country? Is food culture bydefinition the result of an autonomous shift in consumer views/tastes or can a change infood 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 orally and in writing for or against (a) a perspective and (b) a current societal issue.

• You can orally discuss a current societal issue in a two person face-to-face debate using theoretical and empirical knowledge studied in the course.

• You can demonstrate that you have read and grasped part of the compulsory reading by formulating a new question for your fellow students which requires them to recall, describe and/or comprehend at least two of the compulsory sources.

#### Prerequisites

Recommended: Given the extensive reading load and the required thinking at abstract levels for this course, it is advised to not take this course in your 6 months of study.

#### **Recommended reading**

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

# VCO1003

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: D.C.J. Bartelet Teaching methods: Lecture(s), PBL Assessment methods: Written exam, Attendance, Presentation and paper

# University College Venlo 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** 6 Apr 2020 5 Jun 2020

Print course description

ECTS credits: 5.0 Coordinator: A.J. Boon Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Final paper, Written exam

# University College Venlo Globalisation: World Politics and Economics

#### **Full course description**

In this course students will use ideas from political philosophy to understand issues that are characterisit 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.

#### VC01004

**Period 2** 28 Oct 2019

20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: A.J. Boon Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Take home exam

#### University College Venlo 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 every-day thinking, the course fosters a thorough understanding of natural and social phenomena. Throughout the course, students are encouraged to link models to specific situations and examples from their daily-life.

#### **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. (2010). Theory Construction and Model-Building Skills – A Practical Guide for Social Scientists, New York: The Guillford Press. Original research articles.



**Period 1** 2 Sep 2019 25 Oct 2019

Print course description

ECTS credits: 5.0 Coordinator: A. de Boer Teaching methods: PBL, Lecture(s), Training(s) Assessment methods: Attendance, Assignment, Written exam

#### Concentration

# **Concentration: Social Sciences**

# University College Venlo 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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: R.C. Havermans Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

## University College Venlo 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 entrepreneurship. It is not a course in which you prepare the start of a new venture. Nevertheless, you may expect the course to inspire you to start exploring opportunities that you could pursue next to, or after your studies.

#### **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 entrepreneurs select their opportunities.
- You are able to explain how entrepreneurs link value creation to value appropriation.

#### **Prerequisites**

Recommended VSS1101 Introduction to Psychology or VSS1201 Introduction to Business Administration

#### **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** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: M.A. Carree Teaching methods: PBL, Assignment(s) Assessment methods: Attendance, Assignment, Participation, Presentation

# University College Venlo 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. Not only does this course explore the social roots of these divisions, but uses sociological concepts and theories to facilitate understanding how these divisions work and why the 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** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: J.L.M. Bruyninckx Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Participation, Assignment, Final paper

## University College Venlo 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
- Research Articles

# VSS2203

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description

ECTS credits:

5.0

**Coordinator:** 

J.M.R. Merk

#### Teaching methods:

Lecture(s), PBL

#### Assessment methods:

Attendance, Participation, Written exam

# University College Venlo 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 their relevance for law and public policy.

#### **Course objectives**

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

#### **Prerequisites**

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

## VSS2106 Period 5 6 Apr 2020 5 Jun 2020 Print course description ECTS credits: 5.0 Coordinator: P. Werner Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Participation, Presentation, Written exam

# University College Venlo International Trade Law

#### **Full course description**

The recent revival of (economic) nationalism in various parts of the world, including in some of the traditional pillars of trade liberalization, is a wake-up call to re-examine the multilateral trading system, embodied in the World Trade Organization (WTO). Fears that trade liberalisation limits States'

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

#### **Course objectives**

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

#### **Prerequisites**

VSS1502 Law and Legal Reasoning

• Law and Legal Reasoning

#### **Recommended reading**

• Van den Bossche, P & Prévost, D. Essentials of WTO Law, (Cambridge University Press, 2016)

• WTO, The Legal Texts - The Results of the Uruguay Round of Multilateral Trade Negotiations (Cambridge University Press, 1999, reprinted 2007). The relevant WTO legal texts can also be found on the WTO website and printouts may be used.

• Original research articles will be prescribed to supplement the text book where necessary.

# VSS2502

Period 2 28 Oct 2019 20 Dec 2019 Print course description ECTS credits: 5.0

Coordinator: M.D. Prévost Teaching methods: Lecture(s), PBL

Assessment methods: Attendance, Assignment, Written exam

# University College Venlo 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 2 Sep 2019

25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: P.W.L. Bollen Teaching methods: Work in subgroups, PBL, Lecture(s) Assessment methods: Attendance, Participation, Written exam, Assignment

#### **University College Venlo**

# **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? What are eating disorders?

#### **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

#### **Recommended reading**

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

# VSS2101

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: D.C.J. Bartelet Teaching methods: Lecture(s), PBL Assessment methods: Assignment, Written exam, Attendance

# University College Venlo 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 (e.g., work and organization, crime, psychopathology, and health).

#### **Recommended reading**

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

# VSS2102

#### Period 5

6 Apr 2020 5 Jun 2020

Print course description

ECTS credits: 5.0 Coordinator: A.E.M. Hendriks Teaching methods: PBL, Lecture(s) Assessment methods: Attendance, Presentation, Written exam

# University College Venlo 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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: A.D. Toornstra Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Presentation, Written exam

# University College Venlo Intermediate Microeconomics

#### **Full course description**

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

This course is a first introduction to microeconomics. It will present an overview of the basic models that constitute the foundations of modern economics. We will build the theory of the consumer and the producer from the bottom up to create models of market behavior. The goal is not to offer a

complete description of the world as it exists; rather, we will seek to simplify reality with the goal of providing a concise description of a broad class of real-world circumstances.

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

#### **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

Statistics 1/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**

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

#### VSS2202

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: A.K. Mackenzie Teaching methods: Lecture(s), PBL Assessment methods: Participation, Assignment, Written exam, Attendance

## University College Venlo 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, 'attraction and relationships' and the influence of social media on how we (a) present our 'self' to others and (b) the types of social relationships that are formed.

#### NOTE: from academic year 2020-2021 onwards this course will be offered in period 2

#### **Course objectives**

• You can recall and explain basic social psychological theories and models (e.g. attribution theory; bystander effect; relationship models) that explain how people's thoughts, feelings, and behaviour are influenced by the implicit or explicit presence of other people.

• You can deduce the relevance of some early experiments or readings (e.g. Sherif et al. (1998);

Schachter (1951)) for the development of specific social psychology research areas.

• You can describe a specific social psychological theory and/or model and apply your knowledge about it to examples given to you.

• You can identify and choose academic sources that will give you additional, deeper understanding of a specific social psychological theory/concept beyond the compulsory reading and apply it correctly to example(s) chosen by yourself.

• You can describe orally a social psychological theory and/or model and explain how it relates to current/ everyday life example(s).

• You can demonstrate that you have read and grasped part of the compulsory reading by formulating a new question for your fellow students which requires them to recall, describe and/or comprehend at least two of the compulsory sources.

#### **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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: D.C.J. Bartelet Teaching methods: Lecture(s), PBL **Assessment methods:** Attendance, Presentation, Written exam

#### University College Venlo 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** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: R.C. Havermans **Teaching methods:** Lecture(s), PBL **Assessment methods:** Attendance, Assignment, Portfolio

# University College Venlo 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** 2 Sep 2019 25 Oct 2019

Print course description

ECTS credits: 5.0 Coordinator: T.J.J. van Gemert Teaching methods: PBL Assessment methods: Attendance, Written exam, Presentation

# University College Venlo 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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: E.I.L. Vos Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Final paper, Written exam

# University College Venlo 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 3 Feb 2020

3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: J.C.M. Wachelder Teaching methods: PBL, Lecture(s) Assessment methods: Attendance, Presentation, Final paper

# University College Venlo Advertising: Marketing Communication of 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

Recommendations

VSS1101 Introduction to Psychology or VSS1201 Introduction to Business Administration

#### **Recommended reading**

No obligatory book but E-reader in reference list

## VSS2201

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: S.M.H.E. Nievelstein Teaching methods: Lecture(s), PBL, Presentation(s) Assessment methods: Attendance, Assignment, Presentation, Participation

#### **University College Venlo**

# **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 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 distribution, behavioral economics, the question of whether Economics is a science or not, etc.

#### **Prerequisites**

None.

Recommended

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

#### **Recommended reading**

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

# VSS1202

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: J. Linde Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Participation, Assignment, Written exam

# University College Venlo 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..

#### **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 their interest.

#### **Prerequisites**

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

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

#### **Recommended reading**

• What Business Can Learn From Sport Psychology: Ten Lessons for Peak Professional Performance -Martin Turner, Jamie Barker - ISBN 9781909125919

• Murphy, S. (2012). The Oxford Handbook of Sport and Performance Psychology. Oxford, UK: Oxford University Press

#### VSS3101

**Period 5** 6 Apr 2020

5 Jun 2020 Print course description ECTS credits: 5.0 Coordinator: D.C.J. Bartelet Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment

# University College Venlo Consumer Behaviour

#### **Full course description**

In this course we explore how people make decisions and how companies and governments use that information. We will explore, among other things, how monopolists can exploit their monopoly power, how consumers deal with decisions which have consequences over time, and how we can stimulate ethical consumption. After the course you can explain, why are there so many brands of toothpaste, why 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**

VSS1202 Principles of Economics or VSS2202 Intermediate Microeconomics

#### **Recommended reading**

No book, papers will be assigned

# VSS3202

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description

ECTS credits: 5.0 Coordinator: H. Rusch Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Participation, Presentation, Assignment, Final paper

# University College Venlo 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 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: J.L.J. Ormiston Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Presentation, Participation, Final paper

# University College Venlo Law and Legal Reasoning

#### **Full course description**

The course introduces the fundaments 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 content of modern law
- To introduce students to the discipline of legal reasoning
- To introduce students to the art of reading cases
- To explores 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

#### **Recommended reading**

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

Reader (will be made available through Student Portal)

# VSS1502

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: G.M. Arosemena Solorzano Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

# University College Venlo Supply Chain Management

#### **Full course description**

This course is an introduction course into supply chain management. Students will require a solid foundations 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, forecasting, inventory management, purchasing, logistics, JIT/Lean, Quality and Capacity management.

#### **Course objectives**

Students obtain knowledge and insights into supply chain management concepts and theories and their application in the wider supply chain context. Students also apply practical tools and methods for managing supply chains effectively and efficiently. In addition, students learn basis process and project management skills.

#### Prerequisites

VSS1202 Introduction to Business Administration

Introduction to Business Administration

## **VSS2206**

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: R. Suurmond Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Participation, Written exam

# University College Venlo 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 socalled "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

# VSS3203Period 43 Feb 20203 Apr 2020Print course descriptionECTS credits:5.0Coordinator:J.G.A.M. Lemmink

# University College Venlo 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 with use of data, and a focus on the sustainability of the concepts, such as cradle-to-cradle (re-usability of resources). 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 weeks 1-2, we introduce business management and discuss business strategy in general. In the weeks 3-4, 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
- 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** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: C.P.M. van Hoesel Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment

# University College Venlo Change Management

#### **Full course description**

Today organizations need to be redesigned in a way that enables them to continuously adapt to an ever evolving environment. We can no longer look to the past to help predict the future. There are many challenges ahead in ensuring that organizations continue to survive. But before being able to focus on organizational change itself, students will obtain in the first part of the course a background in organization theory. Questions that will be studied include: Why study organizations and organization theory? How has organization theory changed over the last decades? What are the main contemporary issues and controversies in organizations? What are old vs new organizational forms (e.g. virtual and meta-organizations)? Then, in the second part of the course students will be introduced to some classic and modern models of organizational change. What do they entail for organizational change management and professional practice? And how can one manage radical versus continuous change?

**VSS2302** 

**Period 2** 28 Oct 2019 20 Dec 2019 Print course description ECTS credits: 5.0

# **Concentration: Sciences**

# University College Venlo Public Health Policy Making

#### **Full course description**

Students will be made familiar with the following topics in public health: (a) the structure and functions of health care; (b) alternative approaches to public health policymaking: normative, rational, political, institutional, communicative; (c) objectives and instruments of public health policy; (d) impact of contextual factors on public health; (e) governance of public health; (f) food politics; (g) vaccination politics; (h) global health politics.

#### **Course objectives**

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

#### **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.
- Book: Gill Walt, HEALTH POLICY, Zen Books
- References to various websites

# VSC2204

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: J.A.M. Maarse Teaching methods:

#### Lecture(s), PBL Assessment methods: Attendance, Final paper, Written exam

# University College Venlo Clinical Nutrition

#### **Full course description**

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

#### **Course objectives**

- To examine the role of diet on age-related diseases in humans
- To understand how nutrition prevents age-related diseases by exploring underlying mechanisms
- To critically evaluate recent manuscripts discussing dietary interventions in health and disease

#### **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** 3 Feb 2020 3 Apr 2020

#### Print course description

ECTS credits: 5.0 Coordinator: P.J. Joris Teaching methods: Lecture(s), PBL, Training(s) Assessment methods: Attendance, Assignment, Presentation, Written exam

# University College Venlo 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 microorganisms 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** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: H.E. Popeijus Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Written exam

University College Venlo 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

# VSC3102

**Period 5** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: A. Opperhuizen Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

# University College Venlo 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 sound basic knowledge required to enter more detailed courses in life sciences

#### Prerequisites

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

#### **Recommended reading**

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

# VSC1101

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: J.H.O. van Tilburg Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Presentation, Written exam

# University College Venlo 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.

### **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
- Blood pressure control
- Skeletal muscle function and control
- Pulmonary ventilation and regulation
- Kidney function
- Fluid and electrolyte balance
- Gastrointestinal fluid resorption and control
- Neuronal control
- Hormonal control

#### **Prerequisites**

VSC1101 Introduction to Biology

• 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 the on-line library Access Medicine (access provided by UB).

## VSC2102

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: A.J. Gilde Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Final paper, Written exam

#### **University College Venlo**

## **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, 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 and cardiovascular diseases.

#### **Prerequisites**

- VSK1002 Research Methods I
- <u>Research Methods I</u>

### **Recommended reading**

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

## VSC2201

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: S.J.P.M. Eussen Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Participation, Assignment, Written exam

# University College Venlo 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

• 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 Livingston.

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

## VSC2103

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: M.F. Vrolijk Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Presentation, Written exam

#### **University College Venlo**

## **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 3 Feb 2020 3 Apr 2020 Print course description ECTS credits: 5.0 Coordinator: M.M.T.E. Huynen Teaching methods: PBL, Lecture(s) Assessment methods: Attendance, Presentation, Written exam

# University College Venlo 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**

To gain knowledge and insight in:

- The shelf life and safety of food
- The processing of food
- The use of additives during food production
- Influence of storage and processing on organoleptic properties of food
- Interactions between different components of food
- How the nutritional value is affected during the processing of raw materials
- The organoleptic properties of food
- The importance of food packaging

#### 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.

• Murano, P. (2003). Understanding food science and technology. Belmont, CA: Thomson/Wadsworth.

## **VSC2203**

**Period 5** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: G.W.J. de Wildt Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Presentation, Written exam

## University College Venlo 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 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** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: G.M.J. Rutten Teaching methods: Lecture(s), Work in subgroups, Assignment(s) Assessment methods: Attendance, Assignment, Presentation

## University College Venlo 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 concering 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 bioterorrism issues will also be addressed.

## **Course objectives**

Students can...

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

### Prerequisites

VSC2013 Pharmacology and Toxicology and/or VSC1201 Introduction to Public Health

## **Recommended reading**

Original research articles

## VSC3204

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: A. de Boer Teaching methods: Lecture(s), PBL, Training(s), Working visit(s) Assessment methods: Attendance, Presentation, Assignment, Written exam

# University College Venlo 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, Sixth Edition James D. Mauseth - ISBN: 9781284077537.

## **VSC2207**

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: P.A. Passarinho Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Presentation, Written exam

## University College Venlo 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

#### Recommendations

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** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Coordinator: G.J.M. den Hartog Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Presentation, Written exam

## University College Venlo Sustainable Food Production

## **Full course description**

The emphasis of this course will be on the getting to know some tools and methods used in sustainability assessment. We will analyse several existing case studies to see how the methods and tools were applied. Issues of scale (case studies at global, regional and local level) and of stakeholders (who to involve) will be addressed. Content wise the course will focus on applying the Sustainable Development Goals (UN, 2015). One of the great challenges of our time is feeding the extra billions of people to live on the planet.

### **Course objectives**

This course will offer insights in the challenges of sustainability in food production ecosystems. After participating in the course, students are expected to be able to:

• Explain, appraise and prioritise basic concepts for measuring KPI's of sustainability along the food chain.

- Critically evaluate food sustainability concepts.
- Present by means of a video science-based recommendations how food companies can make
- further progress in sustainable development.

#### **Prerequisites**

- VSC1501 Sustainable Development
- VSC2203 Food Technology and Processing
- Sustainable Development
- Food Technology and Processing

#### **Recommended reading**

Students are not required to buy a specific book

The recommended books for this course are:

- Baldwin C.J. (2015). The 10 Principles of Food Industry Sustainability, Wiley Blackwell.
- Robertson M. (2017). Sustainability Principles and Practice (2nd.ed.), Routledge.
- Nierenberg D., (2018). Nourished Planet, Sustainability in the global food system, Barilla Center for Food and Nutrition, Island Press.
- Original research articles.

## VSC3501

#### Period 4

3 Feb 2020 3 Apr 2020

Print course description

ECTS credits: 5.0 Coordinator: S. Floto Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Presentation

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

## **Course objectives**

• To provide students with knowledge and understanding of what Public Health encompasses and that Public Health can intervene on several ecological levels (individual, interpersonal, organization, community, society), what the main aims of public health are (disease prevention, health protection, health promotion) and how it has developed over the years.

• After this course, students will have gathered experience in the application of knowledge and understanding and the translation to the field of observational research. They will also have developed basic skills on how to use knowledge and observational data in order to find solutions for a public health problem and on reporting these solutions.

• Learning skills: After this course students will be able to find their way in the available literature, to follow developments in public health in a critical and efficient way, integrate the different 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., Beaglehole, R., Lansang, M.A. & Gulliford, M. (2011) Oxford Textbook of Public Health. Oxford: Oxford University Press. (reading room)

• Specific literature that is available online or in an e-reader

## **VSC1201**

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinators: G.M.J. Rutten D.F.L. de Ruijter Teaching methods: Lecture(s), PBL, Work in subgroups Assessment methods: Attendance, Assignment, Presentation, Written exam

## University College Venlo 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 4th edtition 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 7th edtion Pearson
- Bray, G.A. & Bouchard, C. Handbook of obesity 3rd edition

## **VSC2202**

**Period 5** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: E.E. Blaak Teaching methods: Lecture(s), PBL, Training(s) Assessment methods: Attendance, Assignment, Written exam

## University College Venlo 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 genenetic modifications.

Recommendation: interest in biology at molecular level

## **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

28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Coordinator: H.E. Popeijus Teaching methods: PBL, Lecture(s) Assessment methods: Attendance, Written exam

## University College Venlo Introduction to Chemistry

### **Full course description**

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

### **Course objectives**

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

### **Recommended reading**

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

## **VSC1401**

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description ECTS credits: 5.0 Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Participation, Written exam

## University College Venlo Calculus

### **Full course description**

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

### **Course objectives**

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

## VSC2302

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 5.0 Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

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

## **Course objectives**

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

#### **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
- VSC2101 Psychology of Eating
- VSC2201 Epidemiology of Food
- VSC2202 Food and Disease
- VSC2203 Food Technology and Processing
- VSC2205 Nutrition and Metabolism

### **Recommended reading**

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

## VSC3203

**Period 1** 2 Sep 2019

25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: A.R. Garcia Fuentes Teaching methods: Lecture(s), PBL, Skills Assessment methods: Attendance, Assignment, Presentation

## University College Venlo 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.;
- 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.;
- 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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: K. Venema Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

# University College Venlo **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** 2 Sep 2019 25 Oct 2019

Print course description

ECTS credits: 5.0 Coordinator: M.F. Vrolijk

**Teaching methods:** Lecture(s), PBL

#### Assessment methods:

Attendance, Presentation, Written exam

# University College Venlo Sports Nutrition and Physiology

## **Full course description**

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

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

## **Course objectives**

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

• To reflect on the use of nutritional supplements in athletes.

#### **Prerequisites**

VSC2102 Homeostatic Principles

Recommended: one of the physiology/nutrition courses

• Homeostatic Principles

#### **Recommended reading**

• McArdle, W. D., Katch, F. I., & Katch, V. L. (2015). Exercise physiology : nutrition, energy, and human performance (Eighth edition. ed.). Philadelphia: Wolters Kluwer.

• Bagchi, D., Nair, S., & Sen, C. K. (2013). Nutrition and enhanced sports performance : muscle building, endurance, and strength.

## VSC3207

Period 2 28 Oct 2019 20 Dec 2019

Print course description

ECTS credits: 5.0 Coordinator: K. Semen Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Presentation, Written exam

## University College Venlo 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)

• 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  |
| 6 Apr 2020  |
| 5 Jun 2020  |
| Print course description                          |
| ECTS credits:                                     |
| 5.0   |
| Coordinators:                                     |
| <u>G.M.J. Rutten</u>                              |
| F.E.K. Schneider                                  |
| Teaching methods:                                 |
| Lecture(s), Assignment(s), Work in subgroups      |
| Assessment methods:                               |
| Attendance, Assignment, Final paper, Presentation |
|   |

## University College Venlo Data Mining

## **Full course description**

Data mining is a relatively new scientific field that aims to discover interesting knowledge from (very large) data. It became increasingly important for many academic and industrial sectors in recent years, due to the ability to generate and store enormous amounts of data that contains 'hidden' information. Application examples come from life sciences (analysis of genomics and proteomics data as well as biomedical images), marketing (targeted advertising), logistics (optimizing supply chain management), social sciences (communication patterns and dynamics, movement tracking), and beyond. Data mining has elements of artificial intelligence/machine learning and statistics and it makes use of efficient algorithms, visualization techniques, and database systems. This course will introduce you into the different aspects of data mining, including clustering, classification, and association rule learning. It will highlight best practices and possible pitfalls during the data mining process and provide you with hands-on experience using the 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 and learn about usage scenarios and pitfalls of data mining.

## Prerequisites

- VSC1301 Statistics 1,
- and at least one of the following three courses: (i) VSC1302 Introduction to Programming; (ii)

VSC2303 Statistics 2; or (iii) VSC2304 Knowledge Management and Information Technology

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;
- 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/DM/ Larose%20-%20Discovering%20knowledge%20in%20data%20%20-%202005%20.pdf;
- 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;
- Data Mining Algorithms in R, WikiBooks, https://en.wikibooks.org/wiki/Data\_Mining\_Algorithms\_In\_R

## VSC3301

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: P.R. Mandaviya Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

## University College Venlo 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 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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0 Coordinator: M.F. Vrolijk Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

## University College Venlo 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. Real life anatomy is experienced during a practical session by dissection of a sheep brain.

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.

• To gain basic practical knowledge of brain dissection.

### Prerequisites

The course is open for all students, however a genuine interest in neuroscience is recommended

## **Recommended reading**

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

## VSC2106

Period 4
3 Feb 2020
3 Apr 2020
Print course description
ECTS credits:
5.0
Coordinator:
A. Opperhuizen
Teaching methods:
Lecture(s), PBL, Training(s)
Assessment methods:
Attendance, Final paper, Presentation, Written exam

## University College Venlo 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** 28 Oct 2019 20 Dec 2019

## Print course description

ECTS credits: 5.0 Coordinator: A. Wesselius Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

## University College Venlo Chronobiology

## **Full course description**

Rhythms are everywhere. With Earth spinning along its' axes, the moon turning around the 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 field that studies these rhythms; how they work, how they are regulated, how persistent they are, what happens when they are disturbed (by jetlag or shift work), 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 food and light for 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 (e.g., why does a plant open and close its leaves every 24h? and why should you visit the dentist in the early afternoon?).

### **Course objectives**

- Make students familiar with the basic principles of biological (daily, lunar and seasonal) rhythms
- Understand the underlying mechanism of rhythms in the human body
- Gain knowledge of which human body functions and behaviors are controlled by rhythms
- Learn how rhythms influence eating and metabolism
- Experience a hands-on recording of own body rhythms in a basic experiment

| VSC2107                                   |
|---|
| Period 5                                  |
| 6 Apr 2020                                |
| 5 Jun 2020                                |
| Print course description<br>ECTS credits: |
| 5.0                                       |
| Coordinator:                              |
| <u>A. Opperhuizen</u>                     |
|   |

## University College Venlo 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** 

VSC1301 Statistics 1/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** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 5.0 Coordinator: A. Wesselius Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment, Written exam

## **Humanities**

## University College Venlo 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 methods 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 different 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

| VHU1001   |  |
|---|--|
| <b>Period 5</b><br>6 Apr 2020<br>5 Jun 2020                                     |  |
| Print course description<br>ECTS credits:<br>5.0<br>Coordinator:<br>M.T. Kiefer |  |

## University College Venlo Sustainability and Social Justice

## **Full course description**

Growing consumption is the engine that drives our economy. Constant growth however has worldwide major environmental impact and endangers live on earth. The dilemma we currently face is that giving up on growing means risk of economic and social collapse. Maintaining growth however leads to risk of destroying global ecosystems. Sustainability demands that no more is consumed than can be regrown, regenerated and provided again in the future. Sustainability means a good life for the world population within the ecological boundaries of our planet. Sustainable development also entails equal development opportunities for all people and for future generations. To achieve this, economic growth should be decoupled from resource consumption and quality of life. Environmental policies to reduce ecological burden will inevitably lead to issues of justice with regard to legitimacy and approval. Sustainable living in rich countries entails solidarity with other people (in low-income countries) and with future generations. Understanding the environment, the economy and social networks is crucial and urgent in sustainable living.

## VHU2001

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description

ECTS credits: 5.0 Coordinator: M.T. Kiefer

#### **University College Venlo**

## **History of Life Sciences**

## **Full course description**

Offered as of academic year 2020-2021

## VHU2002

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 5.0

## University College Venlo The Political Philosophy of Health

## **Full course description**

Offered as of academic year 2020-2021

## VHU1002

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits:

5.0

Projects

## Projects

# University College Venlo 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. There will be a "yes" (pro) and a "no" (con) position for each group's particular theme. The topics that are available are central issues that have emerged out of a wide range of UCV courses from different concentrations taught during the

academic year. Each topic group will have two teams, each arguing one side of the case. In this course you will work on your debating and communication skills. The emphasis lies on delivery and content. It is not only important to think about what you deliver, but also about how you deliver it. It is your job to persuade an audience as to the correctness of your position. In order to do this, you need a coherently structured, logically laid out set of arguments that you will present in a clear and self-assured way. Your task is to make the issue involved come alive.

## **Course objectives**

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

### **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** 6 Jan 2020 31 Jan 2020

Print course description ECTS credits: 5.0 Coordinator: K. Semen Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Final paper, Assignment

## University College Venlo 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).

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... :

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

### **Prerequisites**

VSK2004 Academic writing

Recommended: VSK2001 Argumentation

<u>Academic Writing</u>

### **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.

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 3 6 Jan 2020 31 Jan 2020

Print course description ECTS credits: 5.0 Coordinator: P.P.C. Wilms van Kersbergen Teaching methods: Lecture(s), Skills, Research, Presentation(s) Assessment methods: Attendance, Assignment, Presentation

#### **University College Venlo**

## **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 and understand 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 research
- has knowledge and understanding of the principles of causality and causal reasoning, and be able to distinguish between various criteria that can be used to assess a causal relationship between exposure and health outcome
- has basic knowledge of and insight into the main principles and procedures of diagnostic test (strategy) development and evaluation
- is able to distinguish between the various types of literature review and identify the advantages and disadvantages of these types of literature review
- is able to identify the subsequent steps of a systematic literature review.

2. Application of knowledge and insight:

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

## **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** 6 Jan 2020 31 Jan 2020 Period 6 8 Jun 2020 3 Jul 2020

Print course description

ECTS credits: 5.0 Coordinator: C.J.A.W. van Gool - de Vrede Teaching methods: Lecture(s), PBL

Assessment methods: Attendance, Assignment, Written exam

## University College Venlo Research Methods II: Lab Skills

## **Full course description**

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

## **Course objectives**

- To apply the safety and good laboratory practices in the development of scientific experiments across all the practical sessions.
- To use the laboratory equipment and materials with precision and efficiency.
- To conduct scientific laboratory experiments with accuracy and professionalism demonstrated through registration of procedures in the lab journal and writing of scientific reports.

• To assess and conclude over experiment's results to outline coherent conclusions.

## Prerequisites

Recommendation: VSC1401 Introduction to Chemistry

## **Recommended reading**

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

## **VPR1004**

**Period 3** 6 Jan 2020 31 Jan 2020 **Period 6** 8 Jun 2020 3 Jul 2020

Print course description ECTS credits: 5.0 Coordinator: A.R. Garcia Fuentes Teaching methods: Skills Assessment methods: Attendance, Assignment

# University College Venlo 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, writing a research article and communicating the findings in writing. The outcome will be a research article that is of sufficient quality to be submitted to the UCV journal.

## **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 (planning, writing, evaluating, researching).
- 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

### **Recommended reading**

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



**Period 6** 8 Jun 2020 3 Jul 2020

Print course description ECTS credits: 5.0 Coordinator: D.C.J. Bartelet Teaching methods: Lecture(s), Work in subgroups, Training(s), Research Assessment methods: Assignment, Attendance, Final paper, Presentation

# University College Venlo PEERS - Undergraduate Research III

#### **Full course description**

PEERS is a form of RBL, Research-Based Learning. In RBL, learning is based on research that students do themselves, rather than being dependent on research done before and by others. Small groups of students will conduct research under the guidance of a senior researcher. They will act as a group, but engage in individual work as well. PEERS offers a unique opportunity to develop one's own research topic. In this way, student researchers will make an actual contribution to ongoing research, and will experience firsthand what is involved in doing research. During the project, specific skills will be addressed at the appropriate time: e.g. problem analysis, writing a proposal, data selection and analysis reporting and presenting.

#### **Course objectives**

UCV PEERS is a semester research program carrying 10 ECTS. PEERS encompasses two Skills of each 2.5 ECTS and one Project offered during a semester. In most PEERS projects, the first course period will be mainly dedicated to an introduction into the specific field and related methodologies, and research plan or proposal will be written. During the second and third periods you will be engaged in your own research activities, while staying in touch with other members of the research group to discuss progress and challenges. At the end of the semester UCV will organize a symposium during which all participating students will present their research to their fellow researchers and the larger UCV community. - To enhance the learning experience of students by integrating research into their undergraduate curriculum. - To emphasize the ability to identify and formulate academic problems. - To become aware how according research methodologies provide answers and may initiate new ideas. - To reinforce the awareness of how academic work relates to society.

#### **Prerequisites**

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

- PEERS Undergraduate Research I
- PEERS Undergraduate Research II

#### **Recommended reading**

Project-specific literature will be used

# VPR3103

**Period 6** 8 Jun 2020 3 Jul 2020

Print course description ECTS credits: 5.0 Coordinators: K. Semen A. Opperhuizen Teaching methods: Research, Work in subgroups Assessment methods: Presentation, Final paper

### University College Venlo Conference

#### **Full course description**

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

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

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

#### **Course objectives**

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

- To train students in skills required for preparing an academic conference.
- To give students the opportunity to position their interest within a field of their choice and academic fields in general and express that by means of activities at a conference such as lectures and workshops.
- To train students to work together and set up a plan for a conference.
- To train students in using a framework for instructional design and apply its principles to their

individual contributions to the conference.

• To train students in writing lesson plans for their individual contributions to the conference and the plenary sessions that will be offered.

• To train students in working together on preparing and executing a conference.

#### **Prerequisites**

VSK3001 Preparing Conference I; VSK3002 Preparing Conference II

Recommended

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

• Preparing Conference I

• Preparing Conference II

#### **Recommended reading**

Project-specific literature will be used.

# VPR3001 Period 6 8 Jun 2020 3 Jul 2020 Print course description ECTS credits: 5.0 Coordinator: G.M.J. Rutten Teaching methods: Training(s), Work in subgroups Assessment methods: Assignment, Attendance

University College Venlo Think Tank

#### **Full course description**

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

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

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

#### **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**

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

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

Participating in Think Tank as part of the regular workload at UCV is doable but demanding. Therefore, having a higher workload due to e.g. additional or parallel projects is not allowed.Description of the course

Students will be assigned to writing and presenting a (policy) recommendation that is partly based on the knowledge and expertise they have developed as a result of their educational program at UCV. Students will form a 'think tank' and write and present an extensive and elaborate (policy) recommendation for a client, i.e. a company or organization. The coordinators of the project will offer a topic in advance. The first week will focus on a problem analysis and an analysis of the knowledge and expertise of the members of the think tank. The second week will focus on doing research. The third week will deal with discussing and formulating solutions. During the final week students will present their report to an audience of experts. Besides having meetings with their fellow students and a tutor, the group will might meet with guest experts (either invited by the coordinators or by the students themselves) and undertake field trips in order to obtain the required information. Students will be assigned a specific role within the think tank, depending on their academic background and skills.

#### **Recommended reading**

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

### VPR3002

**Period 3** 6 Jan 2020 31 Jan 2020

Print course description ECTS credits: 5.0 Coordinators: I.M. Burks A. de Boer Teaching methods: PBL, Work in subgroups, Working visit(s), Assignment(s) Assessment methods: Attendance, Assignment, Presentation

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

# VPR3003

**Period 6** 8 Jun 2020 3 Jul 2020

Print course description ECTS credits: 5.0 Coordinator: M.T. Kiefer Assessment methods: Attendance, Assignment

# University College Venlo 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 Marketing Strategy & 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 productmarket strategies; and (4) budgeting marketing, financial and production resources.

#### **VPR2004**

**Period 6** 8 Jun 2020 3 Jul 2020

Print course description

ECTS credits: 5.0 Coordinator: S.A. Sadowski

# University College Venlo Generative Interviewing

#### **Full course description**

Whether it is for writing a newspaper article, to diagnose someone, or when you want 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 a selected number of interview techniques, that can be used in different settings, focussing on (tacit) knowledge transfer interviews and 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**

Students...

- Will learn how to identify explicit knowledge and uncover tacit knowledge
- Will discuss about and appreciate different interviewing techniques
- Will experiment with conducting interviews for various purposes
- Can organise the data gathered through interviews
- Can conduct an interview adequate for the specific knowledge that one wants to retrieve

#### **Recommended reading**

Materials available on Student Portal

VPR2003 Period 3 6 Jan 2020 31 Jan 2020

Print course description ECTS credits: 5.0 Coordinator: A. de Boer Teaching methods: Training(s)

Skills

# Skills

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

#### **Course objectives**

• To produce methodologies that answer the different research questions by creating a protocol and plan of the activities to develop in the lab.

• To conduct laboratory experiments with precision and professionalism demonstrated through the register of procedures in the lab journal.

• To interpret and evaluate results obtained from the experiments by the elaboration of reports at the end of the practical.

• To assess and conclude over experiment's results to solve a given problem and outlining the conclusions in reports at the end of the practical.

#### **Prerequisites**

VPR1004 Research Methods 2 Lab Skills

#### **Recommended reading**

Textbook chapters and scientific articles will be presented in the Reference List to cover information about different topics related to the practicals.

# VSK2002

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description
ECTS credits:

2.5

Coordinator: A.R. Garcia Fuentes Teaching methods: Skills Assessment methods: Attendance, Assignment

# University College Venlo PEERS - Undergraduate Research II

#### **Full course description**

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

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

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

#### **Course objectives**

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

• To enhance the learning experience of students by integrating research into their undergraduate curriculum.

• To emphasize the ability to identify and formulate academic problems.

• To become aware how according research methodologies provide answers and may initiate new ideas.

• To reinforce the awareness of how academic work relates to society.

#### **Prerequisites**

VSK3101 PEERS - Undergraduate Research I

More than anything else, the PEERS undergraduate research program is aimed at students with a great appetite for learning and research. We expect students who apply for PEERS to have a clear idea on how the project they apply for fits into their own individual UCV curriculum.

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

• PEERS - Undergraduate Research I

#### **Recommended reading**

Project-specific literature will be used

### VSK3102

#### **Period 5** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 2.5 Coordinators: K. Semen A. Opperhuizen Teaching methods: Research, Work in subgroups Assessment methods: Presentation and paper

# University College Venlo Preparing Conference I

#### **Full course description**

See VPR3001 Conference

#### VSK3001

**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 2.5 Coordinator: G.M.J. Rutten Teaching methods: Training(s), Work in subgroups Assessment methods: Assignment, Attendance

# University College Venlo Clinical Lab Skills

#### **Full course description**

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

#### **Course objectives**

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

#### **Recommended reading**

No compulsory literature will be requested for this course.

# VSK2006

**Period 1** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 2.5 Coordinator: K. Semen Teaching methods: Lecture(s), Work in subgroups Assessment methods: Attendance, Assignment

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

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

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

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

#### **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** 2 Sep 2019 25 Oct 2019

Print course description

ECTS credits: 2.5 Coordinator: M.T. Kiefer Teaching methods: Lecture(s), PBL Assessment methods: Attendance, Assignment

# University College Venlo Presentation Skills

#### **Full course description**

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

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

#### **Course objectives**

Students...

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

#### **Recommended reading**

E-reader

**VSK2005** 

Period 1

2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 2.5 Coordinator: A. de Boer Teaching methods: PBL Assessment methods: Attendance, Presentation, Assessment

# University College Venlo The Applied Researcher I

#### **Full course description**

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

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

#### **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** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 2.5 Coordinator: D.C.J. Bartelet Teaching methods: Lecture(s), Research, Work in subgroups Assessment methods: Attendance, Assignment

# University College Venlo Language Training: German professional proficiency at B2

#### **Full course description**

Englisch ein Muss, Deutsch ist ein Plus.

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

Did you know that:

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

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

#### **Course objectives**

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

#### **Prerequisites**

Prerequisites are a previous German language module at B1 level or a compulsory intake interview.

#### **VSK2000**

**Period 2** 28 Oct 2019

20 Dec 2019

Print course description ECTS credits: 2.5 Coordinators: L. Capitani M.R. Jaax Assessment methods: Attendance, Assignment, Written exam

# University College Venlo 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 outcome measures fitting the hypotheses and what this means for internal and external validity. In order to enhance learning, students need to apply this by writing the introduction and part of the research methods of a study proposal on one of the topics provided by the staff and to peer review each others work.

#### **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
- Cobo E (2011). Effect of using reporting guidelines during peer review on quality of final manuscripts submitted to a biomedical journal: masked randomised trial. BMJ 2011;343
- Driessen E, van Tartwijk J, Dornan T (2008). The self-critical doctor: helping students become more reflective. BMJ 2008;336;827-830
- Shute VJ (2008). Focus on Formative Feedback. Review of Educational Research Vol. 78, No. 1, pp. 153–189
- Ware M (2008). Peer review: benefits, perceptions and alternatives, Publishing Researching Consortium
- www.publishingresearch.net/documents/PRCsummary4Warefinal.pdf
- 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 28 Oct 2019 20 Dec 2019 Period 5

6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 2.5 Coordinator: S.J.P.M. Eussen Teaching methods: Skills, Lecture(s) Assessment methods: Attendance, Assignment, Presentation

# University College Venlo 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 then 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 then probablity/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.

#### **VSK2007**

**Period 4** 3 Feb 2020

3 Apr 2020 Print course description ECTS credits: 2.5 Coordinator: M.F. Vrolijk Teaching methods: Skills, Training(s) Assessment methods: Attendance, Assignment

### University College Venlo 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.

# **VSK2008**

**Period 5** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 2.5 Coordinator: K.M. Schröder Assessment methods: Attendance, Assignment

# University College Venlo 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 in University and begins where the Introduction Period ended. While writing an academic essay, important topics in academia are discussed; defining a thesis statement, searching for literature, reading & note taking, evaluating and creating an argument, referencing and plagiarism, drafting, revising. Additionally, you will learn to evaluate and plan the use of your time effectively and to prepare yourself for exams. We will use various educational formats including lectures, workshops, in class discussions and peer-feedback. You put your acquired knowledge and skills immediately into practice by the writing of an academic essay.

#### **Course objectives**

- Students who successfully complete this course will be able to:
- Define a thesis statement
- Search for literature
- Read & take notes
- Evaluate and create an argument
- Conduct appropriate referencing and prevent plagiarism, falsification and fraud
- Create a draft
- Provide and use Feedback
- Manage time
- Prepare for exams
- Adopt appropriate and effective study strategies

#### **Recommended reading**

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

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

# VSK1001

Print course description ECTS credits: 2.5 Coordinators: I.M. Burks A. Opperhuizen Teaching methods: Training(s), Skills Assessment methods: Assignment, Attendance

# University College Venlo 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 writing the introduction of the research article.

#### **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

#### **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 6 Apr 2020 5 Jun 2020 Print course description ECTS credits:

2.5 **Coordinator:** D.C.J. Bartelet **Teaching methods:** Lecture(s), Research, Work in subgroups **Assessment methods:** Assignment, Attendance

# University College Venlo 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 basics of writing or grammar. Rather, this skill's training course will focus on advanced levels of diffrerent types of writing to help students look deeper into style while writing in 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), write a proposal ((joint, group paper) and how to report and discuss data (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
- and practice how to cite properly together with how to write proper references and acquiring working knowledge of Endnote and its use as a reference management tool

#### **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** 2 Sep 2019 25 Oct 2019

Print course description ECTS credits: 2.5 Coordinator: P.P.C. Wilms van Kersbergen Teaching methods: PBL, Lecture(s) Assessment methods: Attendance, Assignment, Final paper

# University College Venlo 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 genenetic 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**

VSK1005 Research Methods 2: Lab Skills or equivalent.

#### <u>Research Methods II: Lab Skills</u>

#### **Recommended reading**

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

# VSK2003

**Period 2** 28 Oct 2019 20 Dec 2019

#### Print course description

ECTS credits: 2.5 Coordinator: H.E. Popeijus Teaching methods: Skills Assessment methods: Attendance, Assignment

# University College Venlo PEERS - Undergraduate Research I

#### **Full course description**

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

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

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

#### **Course objectives**

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

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

#### Prerequisites

More than anything else, the PEERS undergraduate research program is aimed at students with a great appetite for learning and research. We expect students who apply for PEERS to have a clear idea on how the project they apply for fits into their own individual UCV curriculum.

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

#### **Recommended reading**

Project-specific literature will be used



**Period 4** 3 Feb 2020 3 Apr 2020

Print course description ECTS credits: 2.5 Coordinators: K. Semen A. Opperhuizen Teaching methods: Research, Work in subgroups Assessment methods: Presentation and paper

# University College Venlo Preparing Conference II

#### **Full course description**

See VPR3001 Conference

#### **Prerequisites**

VSK3001 Preparing Conference I

Preparing Conference I

#### VSK3002

**Period 5** 6 Apr 2020 5 Jun 2020

Print course description ECTS credits: 2.5 Coordinator: G.M.J. Rutten Teaching methods: Training(s), Work in subgroups Assessment methods: Assignment, Attendance

#### **University College Venlo**

# **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 and being open to different opinions. In which situations is what type of leadership required? How are group dynamics influecing 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.

#### **Course objectives**

Students...

- Will discuss about and appreciate different forms of effective leadership styles
- Will experiment with different leadership styles themselves
- Can analyse their own leadership skills and style
- Can write about and evaluate their personal development as a leader
- Can analyse the leadership skills of peers and provide constructive feedback

### **Recommended reading**

Materials available on Student Portal.

#### **VSK2009**

**Period 2** 28 Oct 2019 20 Dec 2019

Print course description

ECTS credits: 2.5 Coordinators: A. de Boer D.C.J. Bartelet Teaching methods: Training(s) Assessment methods: Attendance, Assignment, Portfolio

# University College Venlo Influencing and Negotiation Skills

#### **Full course description**

This course is aimed at developing analytical 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, bargain with difficult partners, and manage cross-cultural elements of conflicts.

#### **Course objectives**

- To develop effective negotiation skills to achieve positive 'win-win' outcomes
- To develop and identify your own and others' negotiation styles
- To navigate diverse personalities, communication styles, and bargaining power

#### VSK2011 Period 4 3 Feb 2020 3 Apr 2020 Print course description ECTS credits: 2.5 Coordinator: M.T. Kiefer

# University College Venlo 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 28 Oct 2019

20 Dec 2019

Print course description ECTS credits: 2.5 Coordinator: W.E.J. Bodewes Teaching methods: Work in subgroups, Working visit(s), Skills Assessment methods: Attendance, Assignment, Presentation, Final paper

# University College Venlo 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. But 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 types 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.

# VSK3004

**Period 5** 6 Apr 2020

5 Jun 2020

Print course description ECTS credits: 2.5

Capstone

# Capstone

# University College Venlo Capstone

#### **Full course description**

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

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

Students work on Capstone individually. There will be meetings with the tutors, fellow students, and the coordinator. These meetings support the individual work on Capstone, by way of presenting one's own work to other students and giving and receiving feedback. Furthermore, the meetings are intended to monitor the progress and writing process. Students will meet with their individual advisor separately from the group meetings. Those meetings are intended for discussing the content of the Capstone and for receiving individual feedback on the work in progress and the final product.

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

#### **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.

• 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**

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

#### Recommendations

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

#### **Recommended reading**

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

### **VCA3000** Semester 1 2 Sep 2019 31 Jan 2020 **Semester 2** 3 Feb 2020 3 Jul 2020 Print course description **ECTS credits:** 20.0 **Coordinator:** D.C.J. Bartelet **Teaching methods:** Assignment(s), Coaching, Research **Assessment methods:** Final paper, Presentation, Portfolio