

First year courses

## **Bachelor EPH Year 1**

Fac. Health, Medicine and Life Sciences

### **Health, Health Determinants and the European Union**

#### **Full course description**

This course serves as an introduction to the BEPH curriculum and will lay the foundation for all upcoming courses.

In Part I of this course, you will be introduced to studying in an academic environment, the Problem Based Learning (PBL) system, the library, the structure and content of the EPH programme and the Specialized Competency Lines (SCLs). For a description of these SCLs, we refer to course EPH1221. You will study the many dimensions and complexity of the concept of health, and you will learn and reflect on how health has been defined within various traditions (WHO, positive health) and over time. You will also elaborate on the concepts 'public' and 'European', in order to find out more about what it means to study EPH.

In Part II of the course, you will study various determinants of health on various levels, and the most influential models in this regard. You will also be introduced to the phenomenon of health inequalities. Health is not equally divided among the population and you will study types and possible causes of socioeconomic and other health inequalities.

In Part III, the course departs into a focus on the European Union. This portion of the course addresses issues such as the history of the EU, the main purpose of the EU (economic), the EU treaties and the Charter of Fundamental Rights of the EU, the EU institutions (European Commission, European Parliament, Council), and the decision making processes on EU level. In order to understand public health issues and policies in Europe, it is essential that you have an understanding of the functioning of the EU and EU legislation. You will also reflect on several ethical issues and dilemmas that come into play when thinking about public health in Europe.

#### **Course objectives**

Below is an overview of the most important Intended Learning Outcomes (ILOs) of this course:

##### **Expert**

By the end of the course, students should be able to:

- Describe the concepts of health, public health and diverse definitions of health
- Define and reflect on (European) public health as a domain
- Distinguish between public health and (medical approaches to) health care
- Describe patterns of socioeconomic and other inequalities in health
- Describe (influential models of) factors that determine health
- Identify and describe the history, organs and major legal structures and processes of the EU
- Describe the Treaties of the EU and how public health is addressed in these treaties

## **Investigator**

By the end of the course, students should be able to:

- Recall fundamental principles of research ethics and integrity
- Describe the ways in which research forms the basis for public health activity

## **Communicator**

By the end of the course, students should be able (on a basic level) to:

- Discuss topics and findings in English (aiming for level B2)
- Demonstrate understanding of feedback from teachers and peers

## **Professional**

By the end of the course, students should be able to:

- Understand and describe the problem-based learning approach
- Contribute actively and positively in tutor groups and training groups
- Behave in a respectful, professional and reliable manner in tutor groups and group work

## **Recommended reading**

Below is an overview of basic literature for this course:

- Detels, R., Gulliford, M., Karim, Q.A., Tan, C.C. (Eds.). (2015). Oxford Textbook of Global Public Health (6 ed.). Oxford: Oxford University Press.
- Greer, S.L. et al. (2019). Everything you always wanted to know about European Union health policies but were afraid to ask (2nd ed.). Copenhagen, WHO.
- Leonardi, F. (2018). The definition of health: Towards new perspectives. International Journal of Health Services, 48(4), 735-748.
- Moust, J.H.C., Bouhuijs, P.A.J., & Schmidt, H.G. (2013). Introduction to problem-based learning: a guide for students. Groningen: Wolters-Noordhoff.

EPH1021

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [I. Houkes](#)

Teaching methods:

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

Assessment methods:

Attendance, Participation, Written exam

Keywords:

Health (European) public health Health inequalities Socio-economic inequalities Health determinants European Union Treaty of the European Union Ethical issues Problem Based Learning Fac. Health, Medicine and Life Sciences

# Epidemiology/Methodology/Policy Advocacy/Statistics 1

## Full course description

Course EPH1221 includes the Specialized Competency Lines (SCLs) Research Methodology, Statistics, Epidemiology and Policy Advocacy as taught in period 1. These SCLs are interwoven with the main course EPH1021 Health, Health Determinants and the European Union. For a description of this main course we refer to EPH1021. SCLs are longitudinal, cumulative learning lines, reflecting thematically focused bundles of (portions of) competencies to be achieved. The following five SCLs are interwoven throughout the programme: Research Methodology, Statistics, Epidemiology, Philosophy of Public Health and Policy Advocacy. Students will be introduced to all SCLs in period 1. For a description of the SCL Philosophy of Public Health in periods 1 and 2, please consult course EPH1241. As regards the SCL Methodology, students will be introduced into research methodology and the link between the SCLs Methodology, Epidemiology and Statistics. They will further be trained in the critical appraisal of a research problem. As regards the SCL Epidemiology, students will be introduced into the field of epidemiology and trained in measuring health and disease and associated factors. As regards the SCL Statistics, students will be introduced into statistical thinking and the topics 'What are statistics and for which purposes are they applied?' and 'Meaning and value of "measuring"'. As regards the SCL Policy Advocacy, students will be introduced into the concept of policy advocacy. As students develop an understanding of what health is, and what may determine health, it will become clear that public policy plays a major role in public health outcomes. Not only do public policies define many if not most aspects of the healthcare sector, but public policies also have an influence on all aspects of our living, work, and public environments. Therefore, as public health professionals, it is important that students develop skills in understanding, critiquing, and influencing public policies.

## Course objectives

Below is an overview of the most important Intended Learning Outcomes of this course:

### Expert

By the end of the course, students should be able to:

- Identify key health indicators and extract such indicators from scientific literature
- Identify key examples of public health policy and programmes in Europe: describe the Treaties of the EU and how public health is addressed in these treaties

### Investigator

By the end of the course, students should be able to:

- Summarize the empirical cycle, in particular phase 1 "Formulating a research problem"
- Assess scientific research and publications at a basic level under close supervision
- Describe the ways in which research forms the basis for public health activity
- Explains basic forms of qualitative and quantitative research
- Calculate measures of central tendency and variation
- Make graphical depictions of data and tables summarizing data
- Perform some basic statistical tests

### Communicator

By the end of the course, students should be able (on a basic level) to:

## Bachelor European Public Health

- Demonstrate understanding of feedback from teachers and peers
- Produce limited feedback for peers under supervision

### **Professional**

By the end of the course, students should be able to:

- Behave in a respectful, professional and reliable manner in tutor groups, practicals and group work (both on-campus and online), also in a culturally diverse context

### **Recommended reading**

Bowling, A. (2014). Research methods in health: Investigating health and health services. Maidenhead: Open University Press. McGraw-Hill Education. (E-book) Feak, C.B.& Swales, J.M. (2011). Creating contexts. Writing introductions across genres. Ann Arbor: University of Michigan Press. (Randwyck library Learning and resource center(reference only) SL Q225.5)

EPH1221

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [I. Houkes](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Presentations, Research, Skills, Working visit(s)

Assessment methods:

Assignment, Attendance, Participation

Keywords:

Research Methodology Epidemiology Statistics Policy Advocacy

Fac. Health, Medicine and Life Sciences

## **Philosophy of Public Health part 1**

### **Full course description**

Please see modules EPH1021 and EPH1022.

### **Course objectives**

Please see modules EPH1021 and EPH1022.

EPH1241

Period 1

5 Sep 2022

Bachelor European Public Health

28 Oct 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [O. Zvonareva](#)

Teaching methods:

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

Assessment methods:

Computer test, Written exam

Fac. Health, Medicine and Life Sciences

## **Communicable and Non-communicable Diseases in the EU and WHO-Euro**

### **Full course description**

The module focusses on health and disease not only within the EU but takes the wider perspective of the WHO European region. In this geographical and geo-political perspective, concrete communicable and non-communicable diseases are the focus of attention. You will learn about common and rare diseases and the policy frames to counter these. The classic perspective of public health is to focus on infectious diseases. Thus, the module will start with the introduction of infectious diseases. You will discuss diseases caused by bacteria, viruses and parasites and their incidence and prevalence. You will learn about policy initiatives to prevent and fight these diseases across the WHO European region. For non-communicable diseases, we cover three broad sub-categories: 1) metabolic-toxic diseases like cardiovascular diseases and diabetes, 2) cancer and 3) mental health. In the context of bacterial infectious diseases, the module explores the issue of antimicrobial resistance - in Europe and globally. The structure of the module reflects the idea of "layers of complexity", which means that you will learn about diseases starting from 1) understanding different definitions of diseases and their causality; 2) learning about the complexities of comorbidities; 3) understanding the burden of mental disorders; 4) the role of antimicrobial resistance; 5) the role of broader environment in human health. This module thus approaches diseases through a certain frame, namely through different perspectives and from different angles, among them: aetiology, comorbidity, bio-social determinants, and health equity. Within this module, you will be introduced to the social, biological and epidemiological aspects of diseases. It is not expected that you have prior indepth knowledge in biology. However, for future public health professionals who will work in collaboration with medical doctors and biomedical scientists, it is important to understand some of the concepts and challenges that these professionals meet in their practice.

### **Course objectives**

#### **Expert**

By the end of the course, students should be able to:

- Define (European) public health as a domain, identify main public health methods;

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- Distinguish between public health and (medical approaches to) health care;
- Recall and name basic public health measures of health status;
- Identify key health indicators and extract such indicators from scientific literature;
- Recall, list and describe (influential models of) factors that determine health status;
- Articulate diverse roles of public policy in health protection & promotion within the EU;
- Outline archetypal structures of public health infrastructure in Europe.

### **Investigator**

By the end of the course, students should be able to:

- Explain basic forms of qualitative and quantitative research methods
- Summarize the empirical cycle, in particular phase 2 “selecting research methods”;
- Identify basic components and levels of public health interventions;
- Explain and illustrate problems using academic approaches and critiques;
- Describe the ways in which research forms the basis for public health activity;
- Name sources of quality public health information.

### **Communicator**

By the end of the course, students should be able (on a basic level) to:

- Present on public health topics for peers and teachers;
- Demonstrate understanding of feedback from teachers and peers;
- Produce limited feedback for peers under supervision.

### **Professional**

By the end of the course, students should be able to:

- Accept and reflect on feedback from staff and students passively;
- Behave in a respectful, professional and reliable manner in tutor groups, practicals and group work;
- Contribute actively and positively in tutor groups and training groups;
- Understand, describe and apply the problem-based learning approach;
- Positively engages the challenges and opportunities of intercultural diversity within tutorial groups.

## **Recommended reading**

Specific literature is suggested per each case discussed in tutorial groups

EPH1022

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [E. Ambrosino](#)

Bachelor European Public Health

Teaching methods:

Lecture(s), PBL

Assessment methods:

Attendance, Written exam

Keywords:

Changing disease trends; communicable diseases; non-communicable diseases; policies

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## **Epidemiology/Methodology/Policy Advocacy/Statistics 2**

### **Full course description**

Course EPH1222 includes the Specialized Competency Lines (SCLs) Research Methodology, Statistics, Epidemiology and Policy Advocacy as taught in period 2. These SCLs are interwoven with the main course EPH1022 "Communicable and non-communicable diseases in the EU and WHO Euro". For a description of this main course we refer to EPH1022.

SCLs are longitudinal, cumulative learning lines, reflecting thematically focused bundles of (portions of) competencies to be achieved. The following five SCLs are interwoven throughout the programme: Research Methodology, Statistics, Epidemiology, Philosophy of Public Health and Policy Advocacy.

Students have been introduced to all SCLs in period 1 and will continue developing them in period 2. For a description of the SCL Philosophy of Public Health in periods 1 and 2, please consult course EPH1241.

### **Course objectives**

#### **Expert**

*By the end of the course, students should be able to:*

- Identify key health indicators and extract such indicators from scientific literature
- Identify key examples of public health policy and programmes in Europe: describe the Treaties of the EU and how public health is addressed in these treaties

#### **Investigator**

*By the end of the course, students should be able to:*

- Summarize the empirical cycle, in particular phase 1 "Formulating a research problem"
- Assess scientific research and publications at a basic level under close supervision
- Describe the ways in which research forms the basis for public health activity
- Explains basic forms of qualitative and quantitative research
- Calculate measures of central tendency and variation
- Make graphical depictions of data and tables summarizing data
- Perform some basic statistical tests

#### **Communicator**

*By the end of the course, students should be able (on a basic level) to:*

## Bachelor European Public Health

- Demonstrate understanding of feedback from teachers and peers
- Produce limited feedback for peers under supervision

### **Professional**

*By the end of the course, students should be able to:*

- Behave in a respectful, professional and reliable manner in tutor groups, practicals and group work (both on-campus and online), also in a culturally diverse context

EPH1222

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [E. Ambrosino](#)

Teaching methods:

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

Assessment methods:

Assignment, Attendance, Oral exam, Participation, Presentation

Fac. Health, Medicine and Life Sciences

## **Qualitative Research Methodology**

### **Full course description**

Healthcare and public health environments are facing challenges, including those brought by ageing, technological advances, economic inequalities, and shifting expectations of society. Qualitative research has unique strengths in producing nuanced and people-centered knowledge crucial for understanding impacts of health interventions and complex arrangements of care, among others. During this module students will learn how qualitative research can be used in understanding and addressing contemporary health problems, understand the theoretical foundations of qualitative research; practice qualitative data collection and analysis techniques; and reflect on meaningful ways to combine qualitative and quantitative approaches. Concurrently with delving into qualitative health research, students will work on their year paper with support of trainings in literature search, academic writing, and citation management.

The module is organized around core themes in qualitative research: defining and designing qualitative research project; collecting data; analyzing data and ensuring quality; theory and innovative approaches in qualitative research. The module is practice oriented to allow students master essential techniques sufficient to independently conceive and implement basic qualitative research study.

There are three work formats in this course:

- Lectures, which are planned to be as interactive as possible. Students should be prepared to engage in discussions and participate in short exercises.
- Journal club meetings, where students will be provided with several examples of published qualitative studies to be read before the meeting and guiding questions to direct their reading. During the meetings students together with tutor will analyze the studies and formulate final answers to the questions posed.
- Practicals, during which students will be practicing the elements involved in conducting qualitative research.

## Course objectives

Students who successfully finish the module will be able to:

- Define qualitative research, its relationship with quantitative research, and its distinct roles in health research and practice;
- Know the type of research questions that can be answered with specific qualitative methods and know how to formulate qualitative research questions;
- Demonstrate basic knowledge of a range of qualitative data collection methods, their possibilities and limitations;
- Conduct individual semi-structured interviews;
- Conduct qualitative observational research;
- Demonstrate a basic knowledge of a range of qualitative data analysis approaches
- Prepare and perform thematic content analysis using qualitative data analysis software (Atlas.ti);
- Understand the key issues in qualitative research design;
- Be able to appraise the quality of qualitative research;
- Understand and reflect on the theoretical foundations of qualitative research;
- Be aware of the benefits and challenges involved in mixed-methods research;
- Be aware of the issues to consider in planning a qualitative research project;
- Reflect on the meaning of this module's content for their future professional work.

## Recommended reading

Green, J. & Thorogood, N. (2018) *Qualitative Methods for Health Research*, SAGE  
Olson, Young & Schulz (2016) *Handbook of Qualitative Health Research for Evidence-Based Practice*, Springer  
Tolley, Ulin, Mack, Robinson, Succop (2016) *Qualitative Methods in Public Health: A Field Guide for Applied Research*, 2nd Edition  
Kvale, S. (2007) *Doing Interviews*, SAGE  
Flick, U. (2013) *The SAGE Handbook of Qualitative Data Analysis*

EPH1023

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

3.0

Instruction language:

Bachelor European Public Health

English

Coordinator:

- [O. Zvonareva](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Research, Skills

Assessment methods:

Assignment, Attendance, Computer test, Written exam

Keywords:

qualitative research, Methodology, academic writing, Individual Interviews, Thematic content analysis, Qualitative observations

Fac. Health, Medicine and Life Sciences

## Year 1 Paper

EPH1242

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

3.0

Instruction language:

English

Coordinator:

- [O. Zvonareva](#)

Fac. Health, Medicine and Life Sciences

## Healthy Environments and Sustainability in the EU

### Full course description

The module Environmental Health and Sustainability in the EU focuses on the environment as a determinant of health, and sustainability, in a European context (ILO: E112, E212, E412).

Environment is a broad concept which can comprise (the interaction between) biological, physical, chemical, socio-economic, cultural, institutional and individual factors. This module particularly focuses on the interaction between the social environment (e.g., communities, employment) (ILO: E311, E413, E213) and the (changing) physical environment (e.g., climate change, air and water quality, biodiversity, and ecological issues related to food supply) (ILO: E212, E311). The complexly intertwined social and environmental dynamics of global change increase uncertainties and create specific challenges in the design of health supporting environments and the development of (public health) policy (ILO: I711, I712, E412, E512). Students will study the health impact of environments on various levels and will study how cities, workplaces, and the use of farmland can be managed in the interest of health, well-being and sustainability (ILO: I711, I712, E112, E212, E213, E412). The dynamic intersection of public health with other disciplines is evident in the design process of (built) environments and policy developments, which is why students will be introduced to the pioneering academic fields of One Health and Planetary Health, as well as to inclusive policy approaches, such as the Sustainable Development Goals, WHO Healthy Cities and Health in All Policies (HiAP) (ILO:

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E412, I812, C1511). Environmental factors such as climate change, biodiversity loss and land use change can impact the individual citizen level, for example through effects on health and well-being, but at the same time transcend national and European boundaries and governments. By introducing a systems theory approach, the module zooms in and out through various scale levels, but at the same time keeps a specific European focus, analyzing European processes and policies (e.g., Parma Commitment to Act, 20-20-20 targets EU, WHO European Healthy Cities Network, EU Health & Safety at the Workplace). Main principles and themes addressed are: systems thinking, socio-ecological systems, the environmental health and food production chain, sustainable employability, health impact analysis and translation in to policy.

## Course objectives

### Expert

By the end of the module, students should be able to:

- Define and reflect on (European) public health as a domain, identify main public health methods.
- Recall and name basic public health measures of health status.
- Identify key health indicators and extract such indicators from scientific literature.
- Describes patterns of socioeconomic and other inequalities in health status.
- Recall, list and describe (influential models of) factors that determine health status.
- Distinguishes the concepts of correlation and causality.
- Recognizes scientific evidence establishing correlation and causality of investigated factors with health status.
- Articulates diverse roles of public policy in health protection and promotion within the European Union.
- Describes organizational factors within work environments that impact health status.
- Outlines archetypical structures of public health infrastructure in Europe.

### Investigator

By the end of the module, students should be able to:

- Writes a basic narrative literature review paper under close supervision
- Explains basic forms of qualitative and quantitative research methods and data collection.
- Matches and applies basic statistical analyses to research data.
- Describes examples of interventions used in public health practice and policy.
- Identifies basic components and levels of interventions.
- Explain and illustrate problems using academic approaches and critiques.
- Assess scientific research and publications at a basic level under close supervision.
- Recall fundamental principles of research ethics and integrity.
- Describe the ways in which research forms the basis for public health activity.
- Name sources of quality public health information.
- Read selectively in terms of both quantity and quality of reading materials.
- Relate problem-based learning techniques to personal learning goals and process.

### Communicator

By the end of the module, students should be able (on a basic level) to:

- Presents on public health topics for peers and teachers.

## Bachelor European Public Health

- Discuss topics and findings in English (aiming for level B2).
- Identifies target audience, aim, and channels of a program of public health communication.
- Demonstrates understanding of feedback from teachers and peers.
- Produces limited feedback for peers under supervision.
- Defines diversity in its numerous forms.
- Describes key dimensions of diversity in Europe.
- Recalls and summarizes the Health-In-All-Policies (HIAP) tradition in New Public Health.
- Describes the health promotion idea (e.g. Ottawa charter) of mediating and advocating for health.

### **Professional**

By the end of the module, students should be able to:

- Participates in structured thesis group meetings.
- Accepts feedback from staff and students.
- Summarizes what has been learned.
- Describes strategies to promote personal growth.
- Behave in a respectful, professional and reliable manner in tutor groups, practicals and group work, also in a culturally diverse context (P1813).
- Identifies personal bias and prejudices related to professional responsibilities.
- Contribute actively and positively in tutor groups and training groups.
- Understand and describe the problem-based learning approach.
- Positively engages the challenges and opportunities of intercultural diversity within tutorial groups.

### **Recommended reading**

• Frumkin (2016) Environmental Health: From Global to Local. John Wiley & Sons, 9 feb. 2016 - 896 pagina's (ebook available > order at UL). • Steffen et al. (2005) Global Change and the Earth System: A Planet Under Pressure" Springer-Verlag Berlin Heidelberg New York. • Gupta (2019) The Puzzle of the Global Commons or The Tragedy of Inequality: Revisiting Hardin, Environment: Science and Policy for Sustainable Development, 61:1, 16-25. • Whitmee et al. (2015) Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation-Lancet Commission on planetary health. The Lancet Vol. 386, Issue 10007, P1973-2028. • Laszlo (2006) The Chaos Point. The world at the crossroads. Hampton Roads Publishing Company. • John Urry (2003). Global Complexity. Cambridge, Polity Press.

EPH1024

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [C. Beumer](#)

Bachelor European Public Health

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Presentations, Research, Paper(s), PBL, Skills

Assessment methods:

Assignment, Attendance, Computer test, Portfolio, Presentation, Written exam

Keywords:

Environmental Health, Sustainability, Complex Adaptive Systems, Anthropocene, climate change, Urbanization, Occupation, agriculture, Planetary Health, Environmental Health Policies

Fac. Health, Medicine and Life Sciences

## **Epidemiology/Methodology/Policy Advocacy/Statistics 3**

### **Full course description**

Course EPH1224 includes the Specialized Competency Lines (SCLs) Research Methodology, Statistics, Epidemiology and Policy Advocacy as taught in period 4. This SCLs are interwoven with the main course EPH1024 "Sustainable Environments in the EU". For a description of this main course we refer to EPH1024.

SCLs are longitudinal, cumulative learning lines, reflecting thematically focused bundles of (portions of) competencies to be achieved. The following five SCLs are interwoven throughout the programme: Research Methodology, Statistics, Epidemiology, Philosophy of Public Health and Policy Advocacy.

Students have been introduced to all SCLs in periods 1 and 2 and will continue developing them in period 4. For a description of the SCL Philosophy of Public Health in periods 4 and 5, please consult course EPH1243.

### **Course objectives**

Please see the intended learning outcomes associated with EPH1024.

EPH1224

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [C. Beumer](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, PBL, Research, Skills

Assessment methods:

Assignment, Attendance, Participation, Presentation

Fac. Health, Medicine and Life Sciences

## Philosophy of Public Health part 2

### Full course description

Please see modules EPH1024 and EPH1025.

### Course objectives

Please see modules EPH1024 and EPH1025.

EPH1243

Period 4

6 Feb 2023

7 Apr 2023

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [O. Zvonareva](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, PBL, Skills, Training(s)

Assessment methods:

Assignment, Attendance, Computer test, Written exam

Fac. Health, Medicine and Life Sciences

## Health-Technological Innovation and EU Competencies

### Full course description

The module starts with an introduction focused on the challenges of sustainable innovation in the complex world of healthcare. This interdisciplinary module introduces students to the concept and process of health technological innovation and the role that EU institutions play in this process.

In the subsequent two weeks, the topics of safety, privacy, assessment and implementation related to health technological innovation are introduced.

The following three weeks cover specific innovations, namely innovations related to, for example: (1) pharmaceuticals, (2) medical devices, (3) big data. The EU legal competencies and EU policy initiatives related to each of these domains, are also incorporated in the module, as well as the key public and private sector players, and their roles and partnerships per domain.

The module also touches upon possible involvement of health consumers in the innovation process to co-create new health products, process and policy initiatives that cater to consumer preferences, and improve their experience and quality of life.

Parallel to this, students work on a project assignment focused on di/e-/m-health technology.

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Students learn how to pick up a new idea that responds to specific health needs, investigate it through theoretical public health and health care models, and apply it to a real-world setting taking into account legal, financial and social constraints.

Example topics include: ethical and societal challenges of health technological innovation, unintended consequences of health technological innovation, questionnaire design and data coding, sample vs sampling variability, case studies. Students explore additional topics as part of the Specialized Competency Lines (SCL).

The module ends with a reflection week, which brings together various topics discussed throughout the module, followed by an exam week.

## Course objectives

### Expert

By the end of the module, students should be able to:

- Define and reflect on health technological innovation as a domain, identify main health technological innovation methods
- distinguish between public health and medical approaches to technological innovation in health care
- identify the organs and major political, administrative, and legal structures and processes of the European Union (related to health technological innovation)
- Articulates diverse roles of public policy in health protection and promotion within the European Union (related to health technological innovation)
- Identifies key examples of public health policy and programs in Europe (related to health technological innovation)
- Defines roles of insurer, provider and patient (related to health technological innovation)

### Investigator

By the end of the module, students should be able to:

- Explains basic forms of qualitative and quantitative research methods and data collection
- Summarize the empirical cycle
- Describe examples of interventions used in public health practice and policy
- identify basic components and levels of interventions
- Define science, scientific thinking and scientific knowledge
- Explain and illustrate problems using academic approaches and critiques
- Assess scientific research and publications at a basic level under close supervision
- Recall fundamental principles of research ethics and integrity
- Describe the ways in which research forms the basis for public health activity
- Name sources of quality public health information
- Read selectively in terms of both quantity and quality of reading materials
- Relate problem-based learning techniques to personal learning goals and process

### Communicator

By the end of the module, students should be able (on a basic level) to:

- Present on public health topics for peers and teachers

## Bachelor European Public Health

- Discuss topics and findings in English (aiming for level B2)
- Identify target audience, aim, and channels of a program of public health communication
- Demonstrate understanding of feedback from teachers and peers
- Produce limited feedback for peers under supervision

### Professional

By the end of the module, students should be able to:

- P1611. Accept feedback from staff and students passively
- P1613. Summarize what has been learned
- P1615. Behave in a respectful, professional and reliable manner in tutor groups, practicals and group work
- P1711. Contribute actively and positively within tutor groups and training groups
- P1811. Understand and describe the problem-based learning approach
- P1813. Positively engage the challenges and opportunities of intercultural diversity within tutorial groups

### Recommended reading

- Barlow J. (2017). Managing innovation in healthcare. WSPC (EUROPE).
- European Commission (2018). Study on the economic impact of supplementary protection certificates, pharmaceutical incentives and rewards in Europe. <https://ec.europa.eu/docsroom/documents/29521>
- The European Parliament and the Council of the European Union (2017). Regulation (EU) 2017/745 on medical devices. <https://www.emergogroup.com/sites/default/files/europe-medical-devices-regulation.pdf>
- European Commission (2020). A European strategy for data. [https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020\\_en.pdf](https://ec.europa.eu/info/sites/info/files/communication-european-strategy-data-19feb2020_en.pdf)

EPH1025

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [M.I. Pavlova](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Presentations, Training(s)

Assessment methods:

Assignment, Attendance, Computertest, Final paper, Participation, Presentation, Written exam

Keywords:

health technological innovation, EU legal competencies, safety, privacy, Public health, pharmaceuticals, medical devices, big data, d/e/m-health technology, diffusion of innovation, implementation of innovation

Fac. Health, Medicine and Life Sciences

## **Epidemiology/Methodology/Policy Advocacy/Statistics 4**

### **Full course description**

Course EPH1225 includes the Specialized Competency Lines (SCLs) Research Methodology, Statistics, Epidemiology and Policy Advocacy as taught in period 5. These SCLs are interwoven with the main course EPH1025 "Health Technological Innovation and the European Union". For a description of this main course we refer to EPH1025.

SCLs are longitudinal, cumulative learning lines, reflecting thematically focused bundles of (portions of) competencies to be achieved. The following five SCLs are interwoven throughout the programme: Research Methodology, Statistics, Epidemiology, Philosophy of Public Health and Policy Advocacy.

Students have been introduced to all SCLs in periods 1, 2 and 4 and will continue developing them in period 5. For a description of the SCL Philosophy of Public Health in periods 4 and 5, please consult course EPH1243.

### **Course objectives**

Please see the learning goals within the description of EPH1025.

EPH1225

Period 5

10 Apr 2023

9 Jun 2023

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [M.I. Pavlova](#)

Teaching methods:

Assignment(s), Work in subgroups, PBL, Presentations

Assessment methods:

Assignment, Attendance, Computer test, Participation, Presentation

Fac. Health, Medicine and Life Sciences

## **Introduction to Statistical Methods for Data Analysis**

### **Full course description**

Year one of the new BEPH curriculum concludes with the statistics module, which builds the foundation of statistical methodology and hypothesis testing. The module consists of three themes: (1) Summarizing and describing research data; (2) Testing concept, generalization of results obtained from sample; (3) Introduction to basic statistical techniques. The first theme explores various methods for summarizing and visualizing data collected within a specific research context.

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Students learn about typology of variables (quantitative vs qualitative), central tendencies and dispersion, and graphical tools like histogram and boxplot. In addition, they study measures of association between two variables such as Pearson correlation, relative risk and odds ratio. An important focal point is the difference between correlation and causation. Theme two of the module is devoted to inferential statistics implying the degree to which conclusions obtained from a sample (of persons) can be generalized to a much larger group (i.e., population). A distinction is made between population, sample and sampling distribution. The latter eventually leads to the concept of confidence intervals for testing. Statements about the population are translated statistically as a null hypothesis and alternative hypothesis and concepts like significant level, p-value, type I and type II errors, and power are discussed in detail. In theme 3, students are introduced to basic statistical techniques for testing a hypothesis, such as the t-test for one sample, two (paired and unpaired) samples, and post-hoc comparisons for more than two samples. Finally, the module ends with simple statistical methods for studying relationships between two variables like the chi-square or linear regression analysis.

## Course objectives

### Expert

By the end of the module, students should be able to:

- Recall and name basic public health measures of health status
- Distinguishes the concepts of correlation and causality
- Recognizes scientific evidence establishing correlation and causality of investigated factors with health status

### Investigator

By the end of the module, students should be able to:

- Explains basic forms of (qualitative and) quantitative research methods and data collection
- Matches and applies basic statistical analyses to research data
- Define science, scientific thinking and scientific knowledge
- Assess scientific research and publications at a basic level under close supervision
- Recall fundamental principles of research ethics and integrity
- Reads selectively in terms of both quantity and quality of reading material

### Communicator

By the end of the module, students should be able (on a basic level) to:

- Presents on public health topics for peers and teachers
- Discuss topics and findings in English (aiming for level B2)
- Demonstrate understanding of feedback from teachers and peers
- Produce limited feedback for peers under supervision

### Professional

By the end of the module, students should be able to:

- Accept and reflect on feedback from staff and students passively
- Behave in a respectful, professional and reliable manner in tutor groups, practicals and group

## Bachelor European Public Health

work.

- Contribute actively and positively in tutor groups and training groups
- Understand, describe and apply the problem-based learning approach
- Positively engages the challenges and opportunities of intercultural diversity within tutorial groups

### Recommended reading

• Tan, F.E.S. (2019). Introduction to statistical methods for data analysis with introduction in SPSS (Author: Miranda Janssen) • Andy Field (2018). Discovering statistics using IBM SPSS statistics, 5th edition, ISBN 978-1-4462-4918-5 (pbk) • Utts, J.M., Heckard, R.F. (2015). Mind on Statistics, 5th edition, Congage Learning, ISBN 978-1-258-46318-6 • Moore, D.S., McCabe, G.P., Craig, B., Passer, M. (2014). Introduction to the practice of statistics, 8th edition, ISBN 9781464158933

EPH1026

Period 6

12 Jun 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

6.0

Instruction language:

English

Coordinator:

- [S. Jolani](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, PBL, Skills, Training(s)

Assessment methods:

Assignment, Attendance, Written exam

Keywords:

Health, (European) public health, problem based learning, Methodology, Epidemiology, descriptive statistics, Inferential statistics, data analysis

Second year courses

## Bachelor EPH Year 2

Fac. Health, Medicine and Life Sciences

### Demography and Epidemiology of Ageing, and Migration in the EU

#### Full course description

The 8-week course 'Demography and Epidemiology of Ageing and Migration in the EU' (EPH2021) runs during the first period in year 2 of the Bachelor European Public Health (EPH). The course's main topics are demography and epidemiology, with a special focus on population ageing and migration as important demographical developments in the European Union (EU). As part of course EPH2021, students will learn to apply epidemiological methods to examine the impact of important

demographical developments on public health in the EU.

EPH2021 consists of three parts. In Part I (wk 1), demography will be introduced and students will learn to describe and analyze the extent and causes of population ageing and migration in the EU. In Part II (wks 2-5), several core epidemiological concepts and methods will be dealt with, including research designs, association measures, bias, effect-modification, validity & reliability, and causal interpretation of research findings. Students will familiarize themselves with these concepts by applying them to examine how population ageing and migration impact health in the EU. The role of socio-economic differences will also be considered. Next to the exploration of ageing-related diseases (e.g. dementia), the course also introduces reproductive/child health. Finally, students will learn in Part III (wks 6-8) to apply the knowledge from the first two parts to compare and critically appraise preventive measures (e.g. population screening) and public health policies for controlling negative health consequences of population ageing and migration in the EU.

EPH2021 consists of a variety of teaching activities. Weekly tutorial group meetings are the mainstay of the course, which are supported by various lectures providing theoretical background and several working lectures and a journal club for practicing with important concepts. Next to the course's main teaching activities, several activities of Specialized Competency Lines (SCLs) Philosophy of Public Health, Policy Advocacy and Statistics are scheduled throughout EPH2021.

## Course objectives

### Expert

- organize and apply health definitions within the context of health interventions, policies, and research;
- produce comparative analyses of health status and inequalities using a basic public health toolkit;
- analyse real-world data on health status and inequalities;
- apply techniques to analyse and interpret correlation and causation between variables;
- examine and analyse the effects of confounding and effect modification / interaction;
- describe and compare health-relevant public policies at Member State and EU levels;
- inventory and describe specific examples of public health and health care systems.

### Investigator

- describe advantages and disadvantages of standard epidemiological research designs and data collection;
- match and apply intermediate-level statistical analyses to research data;
- distinguish among various categories (i.e. types) of public health interventions at community, organization and policy levels;
- match research methods and data analysis to specific intervention types;
- apply critical academic thinking tools to dilemmas in public health policy, practice, and scientific research;
- test principles of research ethics and integrity against case studies from practice;
- identify and contrast differing targets (aims) and methods of implementing, financing and applying public health research projects;
- apply a life-long learning concept to one's own professional planning.

### Communicator

## Bachelor European Public Health

- write academic material at English Level C1;
- present on public health topics for a lay audience;
- defend findings and academic reflections upon findings with academic staff;
- discuss topics and findings at English Level C1;
- provide constructive and insightful feedback to peers on selected assignments and group processes;
- summarize health impacts of diversity in Europe, including socio-economic health inequities.

## Professional

- co-lead structured project groups;
- engage feedback from staff and students actively;
- behave in a respectful, professional and reliable manner in tutor groups, practicals, and group work;
- identify personal bias and prejudices related to professional responsibilities and act responsibly to address them;
- ask critical questions and test commonly-held assumptions in forming views on health issues;
- contribute actively and positively within tutor groups and training groups;
- contribute actively and positively within autonomous project teams and 'new' teams in the minor;
- explore alternative forms of problem-based learning (e.g. digital learning platforms, flipped classroom)

## Recommended reading

Recommended textbooks on demography: • Chapter 1: Introduction, in: The Methods and Materials of Demography. DA Swanson, JS Siegel, HS Shryock. Elsevier Academic Press (2004, 1st edition) • Chapter 6.3: Demography and public health, in: Oxford Textbook of Global Public Health. R Detels, M Gulliford, QA Karim, CC Tan. Oxford University Press (2015, 7th edition) Recommended textbooks on epidemiology • Gordis Epidemiology. DD Celentano, M Szklo. Elsevier Saunders (2019, 6th edition) • Textbook of Epidemiology. LM Bouter, GA Zielhuis, MPA Zeegers. Bohn Stafleu van Loghum (2018, 1st English edition) Recommended textbooks on ageing and migration • The Cambridge Handbook of Age and Ageing. ML Johnson. Cambridge University Press (2005, 1st edition) • Migration and Health in the European Union. B Rechel. McGraw-Hill Education (2011, 1st edition)

EPH2021

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [E.H. van Roekel](#)

Teaching methods:

Bachelor European Public Health

Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Presentations, Research, Skills, Training(s)

Assessment methods:

Assignment, Attendance, Presentation, Written exam

Keywords:

Demography; epidemiology; research methods; public health; migration; population ageing; socio-economic inequalities; population screening; public health policy

Fac. Health, Medicine and Life Sciences

## **Epidemiology/Methodology/Policy Advocacy/Statistics 5**

### **Full course description**

During the course EPH2021, several activities are planned that are part of the SCLs Policy Advocacy and Statistics (the activities of the SCL Philosophy of Public Health are part of a separate code, i.e. EPH2241).

The main topic of the SCL Statistics is 'Questionnaire Analysis'. Students will learn how to assess and interpret psychometric properties of a measurement tool, i.e., the reliability and validity of a questionnaire. Several activities for the SCL statistics are scheduled. These include two 2-part lectures (four lectures of 1 hour), two SPSS practical sessions (2 hours each), and two feedback lectures (1.5 hours each). In addition, students need to work in small groups of 3-4 students on a take-home assignment that will be graded on a scale between 1 and 10.

SCL Statistics

The SCL Policy Advocacy in this course will focus on policy advocacy as a tool for agenda setting. How can you help set the agenda for policy innovation and development as a health professional? Also, we will examine a case study on policy advocacy from the United States using the work of Dean Ornish which led to funding for lifestyle change interventions within the national medical insurance program Medicare. Importantly, the topics dealt with during this lecture will be assessed by means of 2 multiple-choice questions during the course exam.

SCL Policy Advocacy

### **Course objectives**

#### **Expert**

- organize and apply health definitions within the context of health interventions, policies, and research;
- produce comparative analyses of health status and inequalities using a basic public health toolkit;
- analyse real-world data on health status and inequalities;
- describe and compare health-relevant public policies at Member State and EU levels;
- inventory and describe specific examples of public health and health care systems.

#### **Investigator**

- match and apply intermediate-level statistical analyses to research data;

## Bachelor European Public Health

- distinguish among various categories (i.e. types) of public health interventions at community, organization and policy levels;
- apply critical academic thinking tools to dilemmas in public health policy, practice, and scientific research;
- test principles of research ethics and integrity against case studies from practice;
- identify and contrast differing targets (aims) and methods of implementing, financing and applying public health research projects;
- apply a life-long learning concept to one's own professional planning.

### Communicator

- write academic material at English Level C1;
- defend findings and academic reflections upon findings with academic staff;
- discuss topics and findings at English Level C1;
- provide constructive and insightful feedback to peers on selected assignments and group processes;
- summarize health impacts of diversity in Europe, including socio-economic health inequities.

### Professional

- co-lead structured project groups;
- engage feedback from staff and students actively;
- behave in a respectful, professional and reliable manner in tutor groups, practicals, and group work;
- identify personal bias and prejudices related to professional responsibilities and act responsibly to address them;
- ask critical questions and test commonly-held assumptions in forming views on health issues;
- contribute actively and positively within tutor groups and training groups;
- contribute actively and positively within autonomous project teams and 'new' teams in the minor.

## Recommended reading

Explained during the learning activities and/or on the CANVAS pages of the SCLs.

EPH2221

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.0

Coordinator:

- [E.H. van Roekel](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Paper(s), Research, Skills

Assessment methods:

Assignment, Attendance, Written exam

Keywords:

Policy Advocacy, Agenda Setting, policy innovation, statistics, questionnaire analysis, psychometric

## Philosophy of Public Health SCL

EPH2241

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Coordinator:

- [O. Zvonareva](#)

Fac. Health, Medicine and Life Sciences

## Lifestyle, Work and Health in the EU

### Full course description

After students have gained insight in the determinants of health and public health methods in general (courses EPH1021 and EPH1022), and in the influence of the (macro) social and physical environment on health (course EPH1024), this course specifically focuses on lifestyle and work characteristics as determinants of health. Students will also be introduced to methods to improve health and quality of life by intervening in these determinants, i.e. by health promotion, work-related interventions, and (EU) policies and regulations regarding lifestyle and work.

The course is structured according to a socio-ecological model, in which individual health is seen as a result of micro, meso and macro level influences and their interactions. On the micro level, the course focusses on the individual's lifestyle, i.e. the individual's health-related behaviour. On the meso level the focus of attention is on the work characteristics and how these influence employee health, and on the macro level the focus is on EU policies and regulations with regard to lifestyle and occupational health.

Work characteristics can affect individual health directly (e.g. dangerous or stressful working situations), and indirectly through lifestyle (e.g. shift work leading to an unhealthy lifestyle). Students will also be introduced in how socio-economic status, work characteristics and lifestyle interact, and how this contributes to socio-economic inequalities in health.

The socio-ecological model is also used to describe how interventions or (EU) policies and regulations can lead to improved health and quality of life. On a micro level, it is addressed how the individual's behaviour can be changed to a healthier lifestyle. On a meso level, it is addressed how work characteristics can be improved and how the work site setting can be used for promoting a healthy lifestyle. And on a macro level, it is discussed how (EU) policies and regulations can lead to more health and well-being.

### Course objectives

By the end of the course, the student:

## Bachelor European Public Health

- Organizes and applies lifestyle and work related determinants of health on a micro, meso and macro level, and analyses what this means for interventions and policies.
- Analyses lifestyle and work influences on health and inequalities in health, and analyses what this means for interventions and policies.
- Analyses real-world data on health status and inequalities in relation to life style, work and work settings.
- Describes and compares health-relevant public policies with respect to lifestyle and occupational health at Member State and EU levels.
- Describes taxonomies of organizational factors and policies within work environments that impact health status
- Inventories and describes specific examples of public health with respect to lifestyle and the work context.
- Distinguishes among various categories (i.e. types) of work related and health promotion interventions at community, organization and policy levels.
- Matches research methods and data analysis to work-related and health promotion interventions.
- Applies critical academic thinking tools to dilemmas in work-related and health promotion policy, practice, and scientific research.
- Presents on public health topics for a lay audience.
- Identifies personal bias and prejudices related to distribution of responsibility and blame for (poor) health and acts responsibly to address them.
- Has experience with alternative forms of problem-based learning (i.e. flipped classroom).

## Recommended reading

- The Luxembourg Declaration on Workplace Health Promotion in the European Union • Safer and Healthier Work for All- Modernisation of the EU Occupational Safety and Health Legislation and Policy (Safer and Healthier Work for All - Modernisation of the EU Occupational Safety and Health Legislation and Policy) • WHO Framework Convention on Tobacco Control, the Tobacco Products Directive (2014/40/EU), and the Council Recommendation of 30 November 2009 on smoke-free environments • Eurofound (2017). Sixth European Working Conditions Survey – Overview report (2017 update). Luxembourg: Publications Office of the European Union. • WHO Commission on the Social Determinants of Health (2008). Closing the gap in a generation: Health equity through action on the social determinants of health (<https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>).
- Rimer, B.K. & Glanz, K. (2005). Theory at a Glance A Guide For Health Promotion Practice (Second Edition).
- Greer, S.L. et al. (2019). Everything you always wanted to know about European Union health policies but were afraid to ask (2nd ed.). Copenhagen, WHO.
- Detels, R. et al. (Eds.) (2015) Oxford Textbook of Public Health. 6th Edition, Oxford: Oxford University Press.
- Tulchinsky, T. & Varavikova, E. (2014). The New Public Health (3rd edition).

EPH2022

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

8.0

Instruction language:

English

Coordinator:

- [R.M. Meertens](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Presentations, Training(s)

Assessment methods:

Assignment, Attendance, Final paper, Presentation, Written exam, Computertest, Participation

Keywords:

lifestyle, Work characteristics & conditions, Lifestyle interventions, Socio-economic health differences, health promotion, occupational health, Work place, Socio-ecological model.

Fac. Health, Medicine and Life Sciences

## **Epidemiology/Methodology/Policy Advocacy/Statistics 6**

### **Full course description**

Course EPH2222 includes the Specialized Competency Lines (SCLs) Statistics, Epidemiology and Policy Advocacy as taught in period 2 of year 2. These SCLs are interwoven with the main course EPH2022 'Lifestyle, Work and Health in the EU'. For a description of this main course we refer to EPH2022. SCLs are longitudinal, cumulative learning lines, reflecting thematically focused bundles of (portions of) competencies to be achieved.

For a description of the SCL Philosophy of Public Health, please consult course EPH2241. In the SCL Statistics in this second period, students will be introduced to simple and multiple linear regression. In the SCL Epidemiology, students will be introduced to the concept of 'population attributable risks', and the importance for disease prevention. In the SCL Policy Advocacy, students will be introduced into policy advocacy for healthy work environments.

### **Course objectives**

By the end of the course the student:

- Verbally debates case studies of policy change and advocacy for health in the field of health promotion and occupational health.
- Matches and applies simple and multiple linear regressions to research data.
- Applies techniques to analyze and interpret population attributable risk, and understands the importance of this concept for disease prevention.

### **Recommended reading**

Rockhill B et al. "Use and misuse of population attributable fractions". Am J Public Health 1998;38:15-19.

EPH2222

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

Bachelor European Public Health

English

Coordinator:

- [R.M. Meertens](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Paper(s), Presentations, Skills, Training(s)

Assessment methods:

Assignment, Attendance, Participation, Written exam, Final paper

Keywords:

Epidemiology, statistics, Policy Advocacy, Population attributable risk, Simple and multiple regression analysis.

Fac. Health, Medicine and Life Sciences

## Excursion to Central and Eastern Europe

EPH2322

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

1.0

Instruction language:

English

Coordinator:

- [A. Wind](#)

Fac. Health, Medicine and Life Sciences

## Introduction to Quantitative Research Methods

### Full course description

The core topic is program evaluation. Health professionals implement Public health programs at different levels (for example, at individual, community, and national levels), and this often occurs simultaneously. Therefore, the evaluation of such programs is complicated. Ideally, such programs embed evaluation from the start. Outcome evaluation investigates if program goals are met for example increase of knowledge or decrease in health complaints. . Process evaluation investigates how the program is implemented by professionals and participants Process data can help explain the outcomes for example certain goals may not be met because corresponding activities were not implemented at all or did not fulfill participants' needs. In this module, students work with real-world data and apply statistical analyses they are familiar with (Chi-square tests, t-tests and regression analyses).

Experimental designs (RCTs) are the gold standard for outcome evaluation. However, randomization at individual level is not always feasible or appropriate in public health programs.

In week 1, quasi-experimental designs are introduced as good alternatives for programs at individual level. In addition, students learn how to compensate for design weaknesses within statistical analyses for example combining process data and outcome data or controlling for baseline

differences between groups caused by non-randomization.

In week 2, cluster randomized trials are introduced as good alternatives for multilevel programs that not only promote individual behavior change but also environmental change. The implications for sample size calculation are explained.

In week 3, participatory action research and responsive evaluation are introduced as good examples of mixed-methods approaches. The term “mixed-methods” refers to the combination of qualitative and quantitative methods. The term “participatory” and “responsive” refer to giving voice to participants throughout all phases of the program that is development, implementation and evaluation.

## Course objectives

The main goal of EPH2023 is to enable students to select good alternative research methods for program evaluation when the gold standard (RCT) is not feasible or not appropriate.

### Expert:

- Organizes and applies health definitions within the context of health interventions, policies, and research
- Analyses real-world data on health status and inequalities
- Applies techniques to analyse and interpret correlation and causation between variables
- Examines and analyses the effects of confounding and interaction

### Investigator:

- Describes advantages and disadvantages of standard research designs and data collection
- Matches and applies intermediate-level statistical analyses to research data
- Distinguishes among various categories (i.e. types) of public health interventions at community, organization and policy levels
- Matches research methods and data analysis to specific intervention types
- Applies critical academic thinking tools to dilemmas in public health policy, practice, and scientific research
- Tests principles of research ethics and integrity against case studies from practice
- Identifies and contrasts differing targets (aims), & methods of implementing, financing and applying public health research projects

### Professional:

- Engages feedback from staff and students actively
- Behaves in a respectful, professional and reliable manner in tutor groups, practicals and group work
- Contributes actively and positively within tutor groups and training tutorial groups

## Recommended reading

Main reference books: Bowling, A. (2014). Research methods in health: Investigating health and health services. Maidenhead: Open University Press. McGraw-Hill Education. Creswell, J.W. & Creswell, J.D. (2018). Research design. Qualitative, quantitative & mixed methods approaches. Los Angeles: SAGE Publications. Detels, R., Gulliford, M., Q. Abdool Karim, Q., & and Chuan Tan, C.

## Bachelor European Public Health

(2015). Oxford textbook of global public health. Oxford: Oxford University Press. (E-book). In addition, students read research papers.

EPH2023

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

3.0

Instruction language:

English

Coordinator:

- [R.M. Vasse](#)

Teaching methods:

Assignment(s), Lecture(s), PBL, Skills

Assessment methods:

Written exam, Assignment

Keywords:

Quantitative research, Mixed-methods, Program evaluation, Quasi-experimental designs

Fac. Health, Medicine and Life Sciences

## Year 2 Paper

### Full course description

The Year 2 Paper (EPH2242) is an individual assignment related to issues discussed in one of the four main content modules (EPH1024, EPH1025, EPH2021 or EPH2022) given since the Year 1 Paper. Compared to the Year 1 Paper, the Year 2 paper is more substantial and written without direct supervision. More substantial implies a more systematic approach and reviewing more studies. Furthermore, the Year 2 Paper should contain a critical appraisal of the methods employed by the studies reviewed in the paper. Without direct supervision implies peer group meetings instead of tutorial group meetings. Although there are no contact hours with teachers, students do receive teacher feedback on the research plan (content). In addition, students give and receive peer feedback.

### Course objectives

#### Investigator:

- Writes a substantial narrative literature review paper without supervision and thereby demonstrates personal initiative in study planning
- Describes advantages and disadvantages of standard research designs and data collection
- Matches and applies intermediate-level statistical analyses to research data
- Distinguishes among various categories (i.e. types) of public health interventions at community, organization and policy levels
- Matches research methods and data analysis to specific intervention types
- Applies critical academic thinking tools to dilemmas in public health policy, practice, and

## Bachelor European Public Health

scientific research

- Tests principles of research ethics and integrity against case studies from practice
- Identifies and contrasts differing targets (aims), & methods of implementing, financing and applying public health research projects

### **Communicator:**

- Writes a substantial narrative literature review paper without supervision and thereby demonstrates personal initiative in study planning
- Writes academic material at English Level C1
- Provides constructive and insightful feedback to peers on selected assignments and group processes

### **Professional:**

- Engages feedback from staff and students actively
- Develops strategies to promote personal growth
- Behaves in a respectful, professional and reliable manner in tutor groups, practicals and group work
- Contributes actively and positively within tutor groups and training tutorial groups

## **Recommended reading**

Main reference book: Aveyard, H. (2014). Doing a literature review in health and social care. Maidenhead: McGraw-Hill.

EPH2242

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

3.0

Instruction language:

English

Coordinator:

- [R.M. Vasse](#)

Teaching methods:

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

Assessment methods:

Final paper

Keywords:

literature review

Third year courses

## **Bachelor EPH Year 3**

Fac. Health, Medicine and Life Sciences

# **(Public) Health Care Systems in the EU**

## **Full course description**

This module aims at analysing and comparing the organization of health systems and health care reforms in the EU through the lens of health systems frameworks.

With special attention to the WHO building blocks. In monitoring the WHO building blocks of health systems, hweek 1The module starts with health system theory in ealth system financing, alongside accompanying indicators and measurement strategies. Developments in insurance schemes, health care markets, access to essential medicines, and access to health care, are discussed through the lens of 3 and week 2 will be the focus of comparisons and classifications of health system structures in the EU.

Week 4-7 will integrate fundamental concepts of health systems within the key reform trends of health systems that are integrated within the WHO building blocks listed below:

- Week 4: Value-based health systems. From a focus on the volume and profitability of services provided - physician visits, hospitalizations, procedures, and tests to a system based on patient outcomes achieved (value-based payment models).
- Week 5: Integrated health systems: From fragmented health systems, in which every local provider offers a full range of services (silos) to systems organized, in which services for particular medical conditions are concentrated in health delivery organizations and in the right locations to deliver high-value care (integrated care networks).
- Week 6: Health information systems: the role of artificial intelligence in health care, leveraging health data and analytics, precision and personalized medicine, to name a few. In summary, how to build an enabling information technology platform in European health systems based on a value agenda? From knowledge-driven towards data-driven health systems.
- Week 7: Health system resilience. Building a health system involves ensuring that strategic health system frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system design and accountability. Health system resilience is also related to health shocks, such as the current pandemic.

## **Course objectives**

### **Expert Competency ILOs**

- E132. Evaluates health as a social, economic and political value, historically and in contemporary European settings
- E133. Appraises and debates the value to society of various ways of defining health and health professional infrastructure
- E531. Compares and classifies public health and health system structures in Europe
- E532. Investigates, analyses and compares policies that give structure to public health and health systems in Europe

### **Investigator Competency ILOs**

- I731. Evaluates the quality of interventions based on scientific criteria and historical best-practices

## Bachelor European Public Health

- I732. Estimates the impact of interventions based on insights from scientific literature

### Communicator Competency ILOs

- C1431. Adapts models of public health causality and promotion to specific needs of diverse populations

### Professional Competency ILOs

- P1633. Behaves in a respectful, professional and reliable manner in tutor groups, practicals and group work
- P1635. Acts according to ethical standards and norms

## Recommended reading

□ Blank, R.H. & Bureau, V.D. (2017). Comparative health policy. 2nd Ed. Basingstroke: Palgrave Macmillan □ Folland et al. (2017). The economics of health and health care, 8th Edition, Routledge □ McPake et al. (2020). Health Economics: An International Perspective, 4th Edition. Routledge

EPH3021

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [M.J. Commers](#)

Teaching methods:

Assignment(s), Lecture(s), Work in subgroups, Paper(s), PBL, Presentations, Training(s)

Assessment methods:

Assignment, Attendance, Final paper, Presentation, Written exam

Keywords:

Health systems, Health economics, Health System Reforms, Comparing European health systems, European Health Union.

Fac. Health, Medicine and Life Sciences

## Epidemiology/Methodology/Policy Advocacy/Statistics 7

### Full course description

Throughout the module, students explore additional topics as part of the Specialized Competency Lines (SCL), such as SCL Methodology (health economics research), SCL Epidemiology (systematic review and meta-analysis), SCL Policy Advocacy (advocacy for equitable access to health care), and in journal club meetings related to SCL Philosophy of Public Health (patient and public participation).

## Bachelor European Public Health

The overall topic of the SCL Methodology will be focused on health technological innovations. This includes a lecture on health technological innovations and an assignment attached to it. Also, it will include one workshop (8 small groups).

The overall topic of the SCL Epidemiology will be focused on systematic review methodology and meta-analysis. This includes a lecture on meta-analysis and a lecture on power calculations and an assignment attached to it. Also, it will include one workshop (8 small groups) on methods.

The overall topic of the SCL Philosophy of Public Health (PPH) will be focused on patient and public involvement/PPI in healthcare. This includes a lecture on logic of care vs logic of choice, and an assignment attached. Also, it will include a journal club (8 small groups) on methods and implications of PPH in healthcare. SCL philosophy has 2 ECTS per semester and its own dedicated exam at the end of period 2.

## Course objectives

### Expert Competency ILOs

- E132. Evaluates health as a social, economic and political value, historically and in contemporary European settings
- E133. Appraises and debates the value to society of various ways of defining health and health professional infrastructure
- E531. Compares and classifies public health and health system structures in Europe
- E532. Investigates, analyses and compares policies that give structure to public health and health systems in Europe

### Investigator Competency ILOs

- I731. Evaluates the quality of interventions based on scientific criteria and historical best-practices
- I732. Estimates the impact of interventions based on insights from scientific literature

### Communicator Competency ILOs

- C1431. Adapts models of public health causality and promotion to specific needs of diverse populations

### Professional Competency ILOs

- P1633. Behaves in a respectful, professional and reliable manner in tutor groups, practicals and group work
- P1635. Acts according to ethical standards and norms

EPH3221

Period 1

5 Sep 2022

28 Oct 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

Bachelor European Public Health

Coordinator:

- [M.J. Commers](#)

Teaching methods:

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

Assessment methods:

Assignment, Attendance, Final paper

Keywords:

Health Economics Research, epidemiology, systematic review, meta-analysis, Philosophy of Public Health, Patient and Public Participation, Health Technological Innovations.

Fac. Health, Medicine and Life Sciences

## **Health Policies at EU Level and Global Health Europe**

EPH3022

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

9.0

Instruction language:

English

Coordinator:

- [R. Hrzic](#)

Fac. Health, Medicine and Life Sciences

## **Epidemiology/Methodology/Policy Advocacy/Statistics 8**

EPH3222

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.0

Fac. Health, Medicine and Life Sciences

## **Philosophy of Public Health part 4**

EPH3241

Period 2

31 Oct 2022

23 Dec 2022

[Print course description](#)

ECTS credits:

2.0

Instruction language:

English

## Thesis Proposal

EPH3023

Period 3

9 Jan 2023

3 Feb 2023

[Print course description](#)

ECTS credits:

6.0

Instruction language:

English

Fac. Health, Medicine and Life Sciences

## Placement and Thesis

### Full course description

In the Bachelor degree in European Public Health, 20 weeks have been allocated for a placement and for writing the Bachelor's thesis, starting beginning of February until beginning of July each year. The placement is centred around independent preparation, planning and conducting academic research on a Bachelor level, which means that the student is to gain experience with conducting independent academic research on a Bachelor level under supervision. This is an opportunity for students to become acquainted with the art and science of research, preferably within an existing and ongoing research project. This research will be the basis for the Bachelor's thesis. The topic of the placement and the thesis must be in line with the mission and objectives of the B-EPH curriculum and must demonstrate the accumulated knowledge and skills of the student.

### Course objectives

1. Application of knowledge, understanding and making judgements to a research project in the field of European Public Health. 7. Ability to develop, plan, implement, monitor and evaluate the process of placement and thesis writing. 6. Using the acquired learning skills to apply to the research project and throughout professional life. 5. Ability to communicate about research and problem solutions with the various players in the field of European Public Health. 4. Ability to assess, monitor, evaluate and make suggestions to adjust European/ international health policies and interventions. 3. Application of concepts, principles, and approaches pertaining to international and European health (care) problems. 2. Application of methodology in designing, conducting, analyzing and interpreting an bibliographical study into a subject relevant to the field of European Public Health.

EPH3025

Period 4

6 Feb 2023

7 Jul 2023

[Print course description](#)

ECTS credits:

30.0

Bachelor European Public Health

Instruction language:

English

Coordinator:

- [R. Hrzic](#)

Teaching methods:

Research

Assessment methods:

Final paper

Keywords:

research placement, Thesis