

### Appendix 1: Description of Modules and Courses in English

Name of Module/Course	Description of the content and learning objectives of Module/Course	Type of instruction	ECTS-Credits
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A. Compulsory modules			
Compulsory module 1 (P 1):			9
Occupational Safety and Health in Latin America	<p><sup>1</sup>This module deals with Occupational Safety and Health (OSH) with emphasis on small and medium sized enterprises (SMEs) and the informal sector in Latin America. <sup>2</sup>Its goal is to introduce and compare the respective legal frameworks for organizing safe working conditions in enterprises and workplaces as well as for protection against infectious diseases, noise and harmful health effects. In addition, the module will look at the ways of dealing with hazardous substances and their application in certain countries. <sup>3</sup>A special focus will be put on epidemiological aspects.</p> <p><sup>1</sup>After successfully completing this module, students will be able to describe political, social and economic aspects of OSH in Latin America Simultaneously. <sup>2</sup>They will acquire expertise to describe the legal frameworks within different OSH systems in regards to OSH and to reflect upon their application in practice. <sup>3</sup>Students will thus be able to identify and assess the risks which undermine the safety of working conditions as well as other hazardous health effects, existing in the workplace within different economic sectors. <sup>4</sup>In addition, students will be able to identify and assess the advantages and disadvantages of different OSH systems in order to ensure safety and health standards in a particular workplace with respect to the legal frameworks and the practical application in Latin America. <sup>5</sup>Furthermore, students will learn to present their own work in the field of OSH and discuss it in an international context with an interdisciplinary team. <sup>6</sup>They will also learn how to develop an epidemiological study protocol for the planning of a project in OSH.</p>		
The module includes the following courses:			
Political, social and economic aspects of Occupational Safety and Health in Latin America (P 1.1)	<p><sup>1</sup>Students will have lectures on the political, social and economic aspects of OSH in Latin America providing an overview of corresponding legal frameworks within different OSH systems and showcase their implementation by means of respective measures and programs. <sup>2</sup>Additionally they will work with virtual patients that confront</p>	Lecture	1

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	<p>them with problems regarding work safety and possible health hazards in the workplace in different Latin American countries.</p> <p><sup>1</sup>After successfully completing this course, students will be able to describe political, social and economic aspects of OSH and their corresponding legal frameworks in Latin America.</p>		
<p>Risk assessment (P 1.2)</p>	<p><sup>1</sup>Students will visit enterprises, SMEs or larger companies close to the course location, in international and multidisciplinary small groups. The aim of these visits is to evaluate these companies' compliance to the currently effective work safety and health protection regulations as well as other aspects related to the issue of occupational safety. Students will also assess the measures used by the companies' to assure safe working conditions in general.</p> <p><sup>2</sup>Students will discuss their observations about the safety standards and the health protection programs in the companies' they have visited within their small groups and will present their results to their fellow students. <sup>3</sup>In addition, they will write a report on their observations for the enterprise they visited. <sup>4</sup>Students will also put together a manual for SMEs and the informal sector, which gives basic information on risk assessments with regards to safety and health protection in the workplace.</p> <p><sup>1</sup>The aim of this course is that students learn to identify and evaluate occupational risk factors related to work safely and other hazardous health effects at the enterprise level by means of a check list. <sup>2</sup>At the end of the course, they will also be able to propose improvement measures in the field of work safety and health prevention for enterprises.</p>	<p>Excursion</p>	<p>2</p>
<p>Occupational Medicine in Latin America (P 1.3)</p>	<p><sup>1</sup>Different Latin American OSH systems including their legal standards for safety and health protection will be introduced to the students. <sup>2</sup>Students will give a presentation on OSH in their region or at their work place. Moreover, they will discuss the particular aspects of applying occupational safety directives there, as well as the resulting safety and health protection standards, in small, multinational and interdisciplinary groups. <sup>3</sup>At the end, the observations will be compared, contrasted and summarized.</p> <p><sup>1</sup>After successfully completing this course, students will be able to describe their own work in the field of OSH and discuss their work in an international context with an interdisciplinary team. <sup>2</sup>Students will be able to use presentation techniques that they practiced during the course. <sup>3</sup>Furthermore, students will be able</p>	<p>Seminar</p>	<p>2</p>

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	to identify and evaluate advantages and disadvantages of different OSH systems in Latin America and to critically compare them with regards to corresponding legal frameworks of OSH.		
Basic skills of epidemiological research in Occupational Safety and Health (P 1.4)	<p><sup>1</sup>Students will be taught the epidemiological, ethical and practical basic skills they need in order to be able to write a study protocol. They will then implement what they have learned and write a study protocol with the help of a tutor. <sup>2</sup>In order to be able to do so, they will have to conduct a structured literature analysis.</p> <p><sup>1</sup>After successfully completing the course, students will be able to put the epidemiological OSH basics into practice and identify a problem in the field of OSH in their region/ in their company. <sup>2</sup>They will be able to write a study protocol according to good epidemiological practice and thus successfully plan and design an epidemiological project.</p>	Seminar	4
Compulsory module 2 (P 2):			6
Working in an international context	<p><sup>1</sup>This module teaches students how to work in the field of OSH in an international context. <sup>2</sup>This includes learning about intercultural differences, improving their self-management, consolidating their English and becoming acquainted with the bioethical aspects of international studies.</p> <p><sup>1</sup>After successfully completing this module, students will be able to take different cultural aspects into account during their work in an international company or organization. <sup>2</sup>They will sharpen their understanding of cultural differences, which may become evident, for instance, with regards to compliance with legal specifications or safety regulations.</p>		
The module includes the following courses:			
Introduction: Intercultural communication, self-directed learning (P 2.1)	<p><sup>1</sup>Working in an international context makes it necessary to communicate with colleagues from different countries. In doing so, it is important to take intercultural differences into account to prevent misunderstandings. <sup>2</sup>In addition, students need to be able to learn self-directedly and to have a good time management in order to be able to successfully complete a Master program that includes many online components in due time. <sup>3</sup>Both these aspects will be introduced by means of online cases and will be discussed in an online forum.</p> <p><sup>1</sup>After successfully completing this course, students</p>	Online seminar	1

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	will be able to apply communication strategies at an international level and take intercultural differences into account in their daily work. <sup>2</sup> In addition, this course will help them to complete all modules of this Master program in the scheduled time.		
Bioethics in Occupational Safety and Health (P 2.2)	<p><sup>1</sup>This course deals with the ethical aspects of OSH in an international context. <sup>2</sup>Students will prepare an ethics application for the project they developed in module P 1 and submit their application to the local ethics review board. <sup>3</sup>Like this, the course builds a bridge between theory and practical work by taking the project that was developed in module P 1 as an example.</p> <p><sup>1</sup>After completing the course, students will be able to successfully submit an ethics application, which takes into account the Helsinki Declaration as well as local regulations and has been developed in accord with good epidemiological practice, for their project works and their Master thesis. <sup>2</sup>In addition, they will be able to prepare the ethically relevant documents for a study like an information letter and a consent form.</p>	Online hands-on session	2
Scientific English 1 (P 2.3)	<p><sup>1</sup>Students will read scientific papers from the field of OSH. Their understanding of the texts will be examined through questions dealing with the content of the texts.</p> <p><sup>1</sup>At the end of the course, students will be able to understand academic texts written in English. <sup>2</sup>The course will help students to broaden their technical and general English vocabulary and to improve their English grammar skills.</p>	Online seminar	1
Scientific English 2 (P 2.4)	<p><sup>1</sup>In addition to reading English papers, students will improve their listening and writing skills. <sup>2</sup>Students will listen to short texts in English and answer questions about these texts.</p> <p><sup>1</sup>At the end of this course, students will be able to understand the content of scientific presentations and texts in English and to discuss them in English written words.</p>	Online seminar	1
Scientific English 3 (P 2.5)	<p><sup>1</sup>This third English language course serves to improve the students' oral English skills in order to enable students to present and discuss OSH issues.</p> <p><sup>1</sup>At the end of the course, students can present and discuss OSH issues in English.</p>	Online seminar	1
Compulsory module 3 (P 3):			9
Applied Occupational	<sup>1</sup> In this module, students will practically implement an		

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epidemiology	<p>epidemiological study, which serves to assess potential needs in a company or a region in regards to safety standards and medical requirements of health protection in the workplace. <sup>2</sup>This module will also teach students to evaluate and to prioritize the results of a project with regard to occupational science aspects.</p> <p><sup>1</sup>At the end of the module, students will be able to organize the fieldwork of an epidemiological study and to take stakeholders' interests into account. They will know how to analyze the data and how to present the results both in a written form and orally. <sup>2</sup>In addition, they will be able to interpret their findings from an occupational science point of view. <sup>3</sup>They will also know how to integrate economic aspects of OSH into an epidemiological study and its analysis.</p>		
The module includes the following courses:			
Occupational Safety and Health project (P 3.1)	<p><sup>1</sup>This course includes the fieldwork for the implementation of the project that was developed in the module P 1, which will allow collecting and analyzing data concerning threats for OSH in the workplace.</p> <p><sup>1</sup>In this course, students will learn how to plan, organize and implement a project practically. <sup>2</sup>They will be able to identify key persons and to convince them of the importance of the project. They will also be taught quality and time management for the implementation of epidemiological studies.</p>	Project	3
Data management and statistical analysis (P 3.2)	<p><sup>1</sup>In this course, students learn how to work with simple data banks and to conduct the basic statistical analysis of epidemiological cross-sectional studies (descriptive analyses, simple logistic regression models). <sup>2</sup>They will then apply what they have learned by analyzing their OSH project (P 3.1).</p> <p><sup>1</sup>After successfully completing this course, students will be able to manage already existing data banks in EpiInfo and to conduct simple analyses with EpiInfo.</p>	Online hands-on session	2
Scientific Writing (P 3.3)	<p><sup>1</sup>"Scientific Writing" is a key qualification, which comprises all kinds of texts from letters and e-mails to presentations, abstracts, posters, scientific publications and applications for external funding. <sup>2</sup>At the beginning of each course, a short introduction into the topic of the course will be given. <sup>3</sup>Students will be given the opportunity to apply what they have just learned in exercises with clearly described learning targets. <sup>4</sup>They will be given direct feedback, the opportunity for discussion in online forums and</p>	Online hands-on session	2



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	<p>sample texts to improve their skills further. <sup>5</sup>In addition, they will give critical feedback on texts of their fellow students. <sup>6</sup>They will apply their newly gained skills by writing the project report for their OSH project (P 3.1).</p> <p><sup>1</sup>After successfully completing this course, students will be able to write reports independently and to present the results of their work at congresses and in scientific magazines. <sup>2</sup>They will also be able to evaluate scientific texts.</p>		
<p>Critical reading of scientific articles (P 3.4)</p>	<p><sup>1</sup>During this course, students will critically discuss scientific publications in the field of OSH.</p> <p><sup>1</sup>After successfully completing the seminar, students will be able to critically evaluate the quality of scientific publications. <sup>2</sup>In addition, students will enhance their scientific writing and presentation skills.</p>	<p>Online hands-on session</p>	<p>2</p>
<p>Compulsory module 4 (P 4):</p>			<p>6</p>
<p>Intervention studies at the workplace</p>	<p><sup>1</sup>This on-site module teaches students the planning and practical implementation of interventions in the field of OSH. <sup>2</sup>The students will learn how to improve occupational safety conditions in enterprises and how to reasonably apply health protection strategies to ensure safe and healthy working conditions for employees. <sup>3</sup>This module prepares the students for their Master thesis.</p> <p><sup>1</sup>After completing the module, students will be able to plan an intervention in one or more companies or a community with the aim to decrease occupational safety risks or health hazards with regards to corresponding legal frameworks. <sup>2</sup>While doing so, they can critically choose from different solutions of dealing with OSH problems based on international literature.</p>		
<p>The module includes the following courses:</p>			
<p>Preparation of intervention studies (P 4.1)</p>	<p><sup>1</sup>First, students will work in small groups and discuss different intervention options to improve the safety and health in the workplace, which may result from their projects in the second semester (P 3.1). <sup>2</sup>They will then conduct a systematic literature analysis and optimize their study design. <sup>3</sup>Finally, they will write a study plan.</p> <p><sup>1</sup>After successfully completing the module, students will be able to plan interventions in the field of OSH, taking into consideration the legal frameworks related to OSH in a particular country. They will also be able</p>	<p>Seminar</p>	<p>4</p>

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	to develop a protocol for the implementation of safety and health measures, to make statistical estimations and to describe advantages and disadvantages of different study designs. <sup>2</sup> They will also be able to develop new cost and time plans for a project.		
Statistical analysis of intervention studies (P 4.2)	<sup>1</sup> This seminar teaches the students the statistical basics of data management and data analysis necessary for their Master thesis.  <sup>1</sup> At the end of the seminar, students will be able to statistically analyze the data of an intervention study.	Seminar	2
Compulsory module 5 (P 5):			9
Global Occupational Safety and Health	<sup>1</sup> During this module in Munich, students will meet module participants from countries outside Latin America. <sup>2</sup> They will learn about OSH systems in Europe and other parts of the world. <sup>3</sup> The students will study the existing legal standards in regards to protection against infections, noise, health risks due to exposure to hazardous substances, as well as the possibilities for their application with respect to organizing safe working conditions in companies and workplaces in countries outside Latin America. <sup>4</sup> They will visit German enterprises and evaluate the implementation of legal safety standards as well as further arrangements to ensure OSH protection there in general. <sup>5</sup> They will see how research in the field of occupational safety risks and health hazards is done in Germany and how OSH is implemented. <sup>6</sup> Together with partners from Latin American countries, they will develop a project for Basic Occupational Safety and Health (BOSH) of employees in regions where the maintenance of occupational safety standards as well as other health protection measures in general is difficult due to a lack of experts, the geographical structure (rural areas) or the structure of the sector (informal workers, small companies). <sup>7</sup> Students will implement this project in their home country after completing the module. <sup>8</sup> In addition, students will gain basic knowledge of modern teaching methods. <sup>9</sup> By working with students from different countries and cultures, the Master program students can demonstrate their intercultural competence. <sup>10</sup> Students will also be able to improve their active English vocabulary thanks to group work in multinational groups.  <sup>1</sup> At the end of this module, students will be able to explain OSH systems in Europe, Asia and Africa and to list their advantages and disadvantages with regards to the degree of safety and health protection they guarantee as well as their legal implementation.		

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	<p><sup>2</sup>They will be able to talk about modern research methods in OSH and their feasibility in their home countries. <sup>3</sup>In addition, they will be able to present their own project results and to critically evaluate presentations. <sup>4</sup>After completing the module, students can describe BOSH and develop and practically implement a BOSH concept for their home country, so as to improve the safety standards and the degree of health protection in the companies there. <sup>5</sup>Furthermore, they will be able to develop modern teaching units.</p>		
The module includes the following courses:			
Occupational Safety and Health outside Latin America (P 5.1)	<p><sup>1</sup>This course introduces different OSH systems as well as legal frameworks for OSH in Europe, Asia and Africa, which will be discussed with the help of case examples. <sup>2</sup>Special focus will be put on Germany, which has one of the oldest OSH systems in the world. <sup>3</sup>In addition, German enterprises will be visited and evaluated according to OSH criteria. Students will evaluate their compliance with the actual legal directives for OSH as well as all other measures used to ensure OSH. The results will be presented in small groups.</p> <p><sup>1</sup>The course covers the following learning targets: Students will become acquainted with different OSH systems and legislative norms which regulate occupational safety and general health protection in the workplace outside Latin America and can discuss their advantages and disadvantages critically in a historical, economic and social context as well to assess them with regards to local practices and legal frameworks which exist in their home countries. <sup>2</sup>Students will then use their knowledge about the practical implementation of OSH outside Latin America by solving case examples. <sup>3</sup>In addition, they will use and show their knowledge in work place assessment of the occupational risks for safety and health of the employees there.</p>	Seminar	2
Research and clinical practice in Occupational Safety and Health (P 5.2)	<p><sup>1</sup>Students are introduced to the current OSH research at the Institute and Outpatient Clinic for Occupational, Social and Environmental Medicine of the University Hospital of Munich (LMU). <sup>2</sup>Simultaneously, they learn about the most recent research data concerning safety hazards and other workplace-related health risks as well as about the possible preventive measures to improve the safety standards. <sup>3</sup>In addition, hands-on sessions will give them the opportunity to learn and practically apply new techniques in different units of the Institute and</p>	Hands-on session	1



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	<p>Outpatient Clinic for Occupational, Social and Environmental Medicine of the University Hospital of Munich (LMU).</p> <p><sup>1</sup>After completing the course, students will be able to talk about up-to-date issues in OSH research in Germany. <sup>2</sup>By using this knowledge, they can develop their own project ideas building on these most recent research data about OSH in the workplace. <sup>3</sup>Students will be able to explain clinical, chemical, physical or psychosocial methods for the improvement of OSH conditions and their application in a local context.</p>		
<p>Presentation techniques (P 5.3)</p>	<p><sup>1</sup>Students will present the results of their module P 3.1 project to the other students in English. <sup>2</sup>The results will be critically discussed in the group.</p> <p><sup>1</sup>After completing the seminar, students will be able to present project results in a clear, descriptive and precise way in English. <sup>2</sup>They can critically evaluate others' projects and discuss them constructively.</p>	<p>Seminar</p>	<p>1</p>
<p>Modern teaching methods in Occupational Safety and Health (P 5.4)</p>	<p><sup>1</sup>Students will learn how to be a good teacher. <sup>2</sup>It is an integral part of the course that students develop their own teaching unit. <sup>3</sup>Students will apply their teaching unit during their BOSH project (P 5.6).</p> <p><sup>1</sup>After completing the course, students will be able to explain the didactical concepts of problem-based learning. <sup>2</sup>In addition, they will be able to develop their own problem-based teaching unit.</p> <p><sup>3</sup>Furthermore, students will be able to lead a problem-based teaching unit.</p>	<p>Seminar</p>	<p>1</p>
<p>Basic Occupational Safety and Health (BOSH) around the world (P 5.5)</p>	<p><sup>1</sup>It is especially difficult to ensure appropriate safety standards and measures for occupational health protection for employees in the informal sector, in SMEs in rural areas or in areas with a lack of medical personnel. <sup>2</sup>Basic Occupational Safety and Health (BOSH) is a strategy to ensure the provision of adequate safety and health relevant measures in these cases. <sup>3</sup>As the first step, this seminar teaches the students the basics of BOSH. <sup>4</sup>The next step will be for them to develop a BOSH concept for a group of employees in their home countries in international, interdisciplinary groups, in order to improve the conditions for OSH with regards to corresponding legal frameworks existing on a local level. <sup>5</sup>Students will be required to choose the same target groups but to adapt the concept to the local conditions in their countries.</p> <p><sup>1</sup>After successfully completing the seminar, students will be able to explain the basic principles of BOSH. <sup>2</sup>They can derive solutions for their local situation</p>	<p>Seminar</p>	<p>4</p>

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	<p>from the examples shown in the course and develop their own ideas for a BOSH concept. <sup>3</sup>They will be able to present their ideas and to discuss them with interdisciplinary colleagues from their own and from other disciplines. <sup>4</sup>They can identify the stakeholders relevant for the implementation of a BOSH concept and include them in their concept.</p>		
Compulsory module 6 (P 6):			15
Closing module	<p><sup>1</sup>In a supervised but self-contained project a topic, related to OSH, will be treated scientifically. <sup>2</sup>Students will define the topic of their project after reading the current scientific international literature (English and Spanish) and discuss the relevance of their project for occupational safety as well as the applied methods and obtained results. <sup>3</sup>The Master thesis is to be written in English or Spanish and to be handed in the form of a scientific publication.</p> <p><sup>1</sup>After successfully completing the module, students will be able to treat a scientific problem, to statistically analyze it, to interpret, critically assess and internationally publish their results.</p>	Master thesis	15
<b>B. Electives</b>			
Elective 1 (WP 1):			6
Integral approach to Occupational Safety and Health and evidence-based medicine	<p><sup>1</sup>The tasks of an interdisciplinary team for OSH generally comprise the following eight fields:</p> <ol style="list-style-type: none"> <li>1. Risk assessment. This can be done through monitoring or control banding.</li> <li>2. Risk assessment through prevention programs.</li> <li>3. Prevention.</li> <li>4. Providing information and training employees and employers in all aspects of OSH.</li> <li>5. Organization of first aid and health care in an enterprise.</li> <li>6. Introduction of occupational health protection directives and regulations as well as planning and implementation of health promoting programs.</li> <li>7. Preserving fitness for work with regard to special groups (people with chronic diseases, elderly employees, etc.).</li> <li>8. Treatment, rehabilitation, retraining.</li> </ol> <p><sup>2</sup>Students will learn in small groups how to integrally approach these aspects in the workplace and thus</p>		

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	<p>learn to ensure safe and healthy working conditions for employees. <sup>3</sup>Additionally, this module is an introduction into evidence-based medicine. <sup>4</sup>In Journal Clubs, students will present scientific articles and discuss them with the other participants.</p> <p><sup>1</sup>After successfully completing the module, students will be able to apply the different aspects of an integral approach to OSH in compliance with legal frameworks in their daily work. <sup>2</sup>Students will also know the basics of evidence-based medicine in OSH and can apply them in their daily work.</p>		
The module includes the following courses:			
Introduction and biological hazards (WP 1.1)	<p><sup>1</sup>This course is an introduction into an integral approach to OSH in an interdisciplinary team. <sup>2</sup>Students will also learn about the different aspects of risks and hazards caused by biological agents. In the next step, students will have to identify these risks in online cases. <sup>3</sup>In addition, the course will touch upon the legal frameworks concerning working with biological materials within different OSH systems.</p> <p><sup>1</sup>At the end of the course, students will be able to discuss facts about an integral approach to OSH with their colleagues. Furthermore, they will be able to list potential risks at the workplace caused by biological agents. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for OSH in the workplace, taking into account corresponding legal regulations for working with biological materials.</p>	Online seminar	1
Chemical and physical hazards (WP 1.2)	<p><sup>1</sup>Students will learn about the different aspects of risks and hazards caused by chemical and physical agents in the workplace. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the legal frameworks which regulate working with chemical and physical hazardous agents within different OSH systems will be explained in this seminar.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by chemical and physical agents. They will also be able to assess risks in an interdisciplinary team with regards to corresponding legal regulations concerning working with these hazardous materials. Also they will be able to propose preventive measures for safety and health at the workplace in order to ensure safe and healthy working conditions.</p>	Online seminar	1
Psychosocial aspects	<sup>1</sup> Students will learn about the different aspects of risks	Online	1

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and conclusion (WP 1.3)	and hazards caused by psychosocial aspects. In the next step, students will have to identify these risks in online cases. <sup>2</sup> In addition, the students will discuss the legal frameworks which regulate work and rest periods as well as protection against discrimination in the workplace within different OSH systems.  <sup>1</sup> At the end of the seminar, students will be able to list potential risks at the workplace caused by psychosocial aspects. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for safety and health in the workplace giving account to corresponding laws and regulations for OSH, in order to ensure safe and healthy working conditions.	seminar	
Evidence-based medicine basics (WP 1.4)	<sup>1</sup> This course is an introduction into evidence-based medicine.  <sup>1</sup> After successfully completing this course, students can describe the aims of evidence-based medicine in OSH. <sup>2</sup> They will be able to identify a connection between a question, an adequate information source and the appropriate research strategy.	Online seminar	2
Journal Club (WP 1.5)	<sup>1</sup> Students will present scientific articles and discuss these with their fellow students in an online journal club. <sup>2</sup> They are required to assess the scientific quality and the significance of the article.  <sup>1</sup> After completing the course, students will be able to assess the scientific quality of articles, applications for external funding and reports.	Online seminar	1
Elective 2 (WP 2):			6
Integral approach to Occupational Safety and Health and clinical Occupational Medicine	<sup>1</sup> The tasks of an interdisciplinary team for OSH generally comprise the following eight fields: 1. Risk assessment. This can be done through monitoring or control banding. 2. Risk assessment through prevention programs. 3. Prevention. 4. Providing information and training employees and employers in all aspects of OSH. 5. Organization of first aid and health care in an enterprise. 6. Introduction of occupational health protection directives and regulations as well as planning and implementation of health promoting programs. 7. Preserving fitness for work with regard to special groups (people with chronic diseases, elderly		

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	<p>employees, etc.).</p> <p>8. Treatment, rehabilitation, retraining.</p> <p><sup>2</sup>Students will learn in small groups how to integrally approach these aspects in the workplace and thus learn to ensure safe and healthy working conditions for employees. <sup>3</sup>In this module, the students will work with virtual patients, i.e. online-learning cases, in the fields of clinical occupational medicine and public health. <sup>4</sup>They will treat different issues by working with case stories, photo material and expert information.</p> <p><sup>1</sup>After successfully completing the module, students will be able to apply the different aspects of an integral approach to OSH in compliance with legal frameworks in their daily work. <sup>2</sup>After completing the module, the students will be able to solve different clinical problems. <sup>3</sup>In addition, they will receive an extensive introduction into the field of epidemiology/ public health.</p>		
The module includes the following courses:			
<p>Introduction and biological hazards (WP 2.1)</p>	<p><sup>1</sup>This course is an introduction into an integral approach to OSH in an interdisciplinary team. <sup>2</sup>Students will also learn about the different aspects of risks and hazards caused by biological agents. <sup>3</sup>In the next step, students will have to identify these risks in online cases. <sup>3</sup>In addition, the course will touch upon the legal frameworks concerning working with biological materials within different OSH systems.</p> <p><sup>1</sup>At the end of the course, students will be able to discuss facts about an integral approach to OSH with their colleagues. Furthermore, they will be able to list potential risks at the workplace caused by biological agents. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for OSH in the workplace, taking into account corresponding legal regulations for working with biological materials.</p>	<p>Online seminar</p>	<p>1</p>
<p>Chemical and physical hazards (WP 2.2)</p>	<p><sup>1</sup>Students will learn about the different aspects of risks and hazards caused by chemical and physical agents in the workplace. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the legal frameworks which regulate working with chemical and physical hazardous agents within different OSH systems will be explained in this seminar.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by chemical</p>	<p>Online seminar</p>	<p>1</p>



Name of Module/Course	Description of the content and learning objectives of Module/Course	Type of instruction	ECTS-Credits
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	and physical agents. They will also be able to assess risks in an interdisciplinary team with regards to corresponding legal regulations concerning working with these hazardous materials. Also they will be able to propose preventive measures for safety and health at the workplace in order to ensure safe and healthy working conditions.		
Psychosocial aspects and conclusion (WP 2.3)	<p><sup>1</sup>Students will learn about the different aspects of risks and hazards caused by psychosocial aspects. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the students will discuss the legal frameworks which regulate work and rest periods as well as protection against discrimination in the workplace within different OSH systems.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by psychosocial aspects. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for safety and health in the workplace giving account to corresponding laws and regulations for OSH, in order to ensure safe and healthy working conditions.</p>	Online seminar	1
Clinical Occupational Medicine basics (WP 2.4)	<p><sup>1</sup>Students will have to deal with different situations in the field of occupational medicine in virtual patients. <sup>2</sup>This includes clinical practice, legislation and workplace assessments.</p> <p><sup>1</sup>At the end of the course, students will be able to solve different clinical problems, to name the legal frameworks related to OSH and to develop workplace assessments.</p>	Online seminar	2
Epidemiology/ public health (WP 2.5)	<p><sup>1</sup>This course consists of computer-based learning cases from the fields of epidemiology/ public health. <sup>2</sup>Epidemiological medical issues will be treated by means of case stories, photo material, and expert information.</p> <p><sup>1</sup>After successfully completing the course, students can understand the basic concepts, methods and various issues from the fields of epidemiology and public health. <sup>2</sup>They will also be able to critically assess health effects, security aspects in the workplace and to choose appropriate prevention strategies. <sup>3</sup>They will be taught research methods that are used in epidemiology and public health. <sup>4</sup>They will also be able to choose the appropriate diagnostics, to differentiate the most important differential diagnoses and to plan therapies.</p>	Online seminar	1

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I	II	III	IV
Elective 3 (WP 3):			6
Integral approach to Occupational Safety and Health and industrial internship	<p><sup>1</sup>The tasks of an interdisciplinary team for OSH generally comprise the following eight fields:</p> <ol style="list-style-type: none"> <li>1. Risk assessment. This can be done through monitoring or control banding.</li> <li>2. Risk assessment through prevention programs.</li> <li>3. Prevention.</li> <li>4. Providing information and training employees and employers in all aspects of OSH.</li> <li>5. Organization of first aid and health care in an enterprise.</li> <li>6. Introduction of occupational health protection directives and regulations as well as planning and implementation of health promoting programs.</li> <li>7. Preserving fitness for work with regard to special groups (people with chronic diseases, elderly employees, etc.).</li> <li>8. Treatment, rehabilitation, retraining.</li> </ol> <p><sup>2</sup>Students will learn in small groups how to integrally approach these aspects in the workplace and thus learn to ensure safe and healthy working conditions for employees. <sup>3</sup>The students can complete an internship in an international company from the field of OSH.</p> <p><sup>1</sup>After successfully completing the module, students will be able to apply the different aspects of an integral approach to OSH in compliance with legal frameworks in their daily work. <sup>2</sup>This will give them the opportunity to learn more about the implementation of OSH structures outside their own company.</p>		
The module includes the following courses:			
Introduction and biological hazards (WP 3.1)	<p><sup>1</sup>This course is an introduction into an integral approach to OSH in an interdisciplinary team. <sup>2</sup>Students will also learn about the different aspects of risks and hazards caused by biological agents. In the next step, students will have to identify these risks in online cases. <sup>3</sup>In addition, the course will touch upon the legal frameworks concerning working with biological materials within different OSH systems.</p> <p><sup>1</sup>At the end of the course, students will be able to discuss facts about an integral approach to OSH with their colleagues. Furthermore, they will be able to list potential risks at the workplace caused by biological agents. They will also be able to assess risks in an</p>	Online seminar	1

Name of Module/Course	Description of the content and learning objectives of Module/Course	Type of instruction	ECTS-Credits
I	II	III	IV
	interdisciplinary team and to propose preventive measures for OSH in the workplace, taking into account corresponding legal regulations for working with biological materials.		
Chemical and physical hazards (WP 3.2)	<p><sup>1</sup>Students will learn about the different aspects of risks and hazards caused by chemical and physical agents in the workplace. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the legal frameworks which regulate working with chemical and physical hazardous agents within different OSH systems will be explained in this seminar.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by chemical and physical agents. They will also be able to assess risks in an interdisciplinary team with regards to corresponding legal regulations concerning working with these hazardous materials. Also they will be able to propose preventive measures for safety and health at the workplace in order to ensure safe and healthy working conditions.</p>	Online seminar	1
Psychosocial aspects and conclusion (WP 3.3)	<p><sup>1</sup>Students will learn about the different aspects of risks and hazards caused by psychosocial aspects. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the students will discuss the legal frameworks which regulate work and rest periods as well as protection against discrimination in the workplace within different OSH systems.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by psychosocial aspects. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for safety and health in the workplace giving account to corresponding laws and regulations for OSH, in order to ensure safe and healthy working conditions.</p>	Online seminar	1
Industrial internship (WP 3.4)	<p><sup>1</sup>Students can complete an internship in an international company.</p> <p><sup>1</sup>This will give them the opportunity to learn more about the implementation of OSH structures and legal standards outside their own company.</p>	Internship	3
Elective 4 (WP 4):			6
Integral approach to Occupational Safety and Health and Environmental Medicine	<p><sup>1</sup>The tasks of an interdisciplinary team for OSH generally comprise the following eight fields:</p> <p>1. Risk assessment. This can be done through monitoring or control banding.</p>		

Name of Module/Course	Description of the content and learning objectives of Module/Course	Type of instruction	ECTS-Credits
I	II	III	IV
	<p>2. Risk assessment through prevention programs.</p> <p>3. Prevention.</p> <p>4. Providing information and training employees and employers in all aspects of OSH.</p> <p>5. Organization of first aid and health care in an enterprise.</p> <p>6. Introduction of occupational health protection directives and regulations as well as planning and implementation of health promoting programs.</p> <p>7. Preserving fitness for work with regard to special groups (people with chronic diseases, elderly employees, etc.).</p> <p>8. Treatment, rehabilitation, retraining.</p> <p><sup>2</sup>Students will learn in small groups how to integrally approach these aspects in the workplace and thus learn to ensure safe and healthy working conditions for employees.</p> <p><sup>1</sup>After successfully completing the module, students will be able to apply the different aspects of an integral approach to OSH in compliance with legal frameworks in their daily work. <sup>2</sup>The students can chose a module from the master program "Occupational and Environmental Medicine" of the Universidad del Rosario in Bogotá. <sup>3</sup>The board of examiners and the head of the master program at the Universidad del Rosario need to approve the choice.</p>		
The module includes the following courses:			
Introduction and biological hazards (WP 4.1)	<p><sup>1</sup>This course is an introduction into an integral approach to OSH in an interdisciplinary team.</p> <p><sup>2</sup>Students will also learn about the different aspects of risks and hazards caused by biological agents. In the next step, students will have to identify these risks in online cases. <sup>3</sup>In addition, the course will touch upon the legal frameworks concerning working with biological materials within different OSH systems.</p> <p><sup>1</sup>At the end of the course, students will be able to discuss facts about an integral approach to OSH with their colleagues. Furthermore, they will be able to list potential risks at the workplace caused by biological agents. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for OSH in the workplace, taking into account corresponding legal regulations for working with biological materials.</p>	Online seminar	1
Chemical and physical	<sup>1</sup> Students will learn about the different aspects of risks	Online	1

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I	II	III	IV
<p>hazards (WP 4.2)</p>	<p>and hazards caused by chemical and physical agents in the workplace. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the legal frameworks which regulate working with chemical and physical hazardous agents within different OSH systems will be explained in this seminar.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by chemical and physical agents. They will also be able to assess risks in an interdisciplinary team with regards to corresponding legal regulations concerning working with these hazardous materials. Also they will be able to propose preventive measures for safety and health at the workplace in order to ensure safe and healthy working conditions.</p>	<p>seminar</p>	
<p>Psychosocial aspects and conclusion (WP 4.3)</p>	<p><sup>1</sup>Students will learn about the different aspects of risks and hazards caused by psychosocial aspects. In the next step, students will have to identify these risks in online cases. <sup>2</sup>In addition, the students will discuss the legal frameworks which regulate work and rest periods as well as protection against discrimination in the workplace within different OSH systems.</p> <p><sup>1</sup>At the end of the seminar, students will be able to list potential risks at the workplace caused by psychosocial aspects. They will also be able to assess risks in an interdisciplinary team and to propose preventive measures for safety and health in the workplace giving account to corresponding laws and regulations for OSH, in order to ensure safe and healthy working conditions.</p>	<p>Online seminar</p>	<p>1</p>
<p>Occupational and Environmental Medicine (WP 4.4)</p>	<p><sup>1</sup>Students can choose a module from the Master program "Occupational and environmental medicine" of the Universidad del Rosario in Bogotá. <sup>2</sup>The board of examiners and the head of the Master program at the Universidad del Rosario need to approve the choice.</p>	<p>Seminar</p>	<p>3</p>