

Catalog of innovative modules and education programmes developed within the project

“Strategic Partnerships in the Field
of Medical Education with a Focus on
Innovative Educational Content and Higher
Labour Market Relevance”
(MEDIC)



Project number 2020-1-DE02-KA202-007407



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

welcöme



Table of contents

1.	Introduction	4
2.	Project partners	5
3.	Modules	
	3.1. MODULE 1: Digitalization in the process of health care	6
	3.2. MODULE 2: Prevention of demotivation at work	10
	3.3. MODULE 3: Human-robot-human interaction	13
	3.4. MODULE 4: Telecare \ Telenurse	17
	3.5. MODULE 5: Environmental protection in the process of care	21
4.	Conclusion	26



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



1 Introduction

This brochure was created by an international team as part of the "Strategic partnerships in the field of medical education with a focus on innovative educational content and higher labour market relevance" (MEDIC) project.

In the brochure you will find the implementation of the competencies from the competency catalog in teaching and learning modules. For this purpose, content from the areas of electronic care documentation, technical assistance systems, telecare/nursing, environmental protection, prevention of demotivation at work and human-robot-human interaction was selected. The individual teaching and learning modules were implemented in media formats, taking innovative pedagogical principles into account. They have also been prepared taking into account the latest guidelines for the education sector. These take into account the change in the educational model, which has been heavily digitized after the pandemic, as well as the educational guidelines related to social change. Education must take these changes into account and continuously adapt the educational content to the demands of modern life.

All partners contributed to the production of the brochure, with the Jagiellonian University taking the lead in the work.



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



2

Project partners

Thüringer Agentur für Europäische
Programme e.V., Germany (Lead Partner)
Dipl.-Eng. Liliana Hrytsyshyn
E-Mail: info@thaep.de
www.thaep.de

Jagiellonian University, Poland
Prof. Teresa Sasińska-Klas, Ph.D.
E-Mail: uhsasins@cyfronet.krakow.pl
www.cyfronet.pl

Ludwig-Fresenius-Schulen GmbH, Germany
Mrs Silvia Grabs
E-Mail: silvia.grabs@ludwig-fresenius.de
www.Ludwig-fresenius.de

Asociatia pentru Educatie si Dezvoltare
Durabila, Romania
Mr Gabriel Dobrescu
E-Mail: gabrieldobrescuio@yahoo.com
www.aesd.ro

YESA Central Europa, Austria
Dr. Christian Hemerka
E-Mail: c.hemerka@hemok.net
www.yesa.at



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



3

Module 1: Digitalization in the process of health care

Total work load of learners	Realized hours with the participation of the teacher	45
	Time for individual work by the learners	30
	Time required to prepare for the assessment process (e.g. test, final presentation)	15

Module description

Digitalization in healthcare offers many opportunities to improve the efficiency, quality and accessibility of healthcare. At the same time, however, adequate measures are also needed to address the ethical, legal and technological challenges and to ensure the best possible use of digital technologies in healthcare.

The purpose of this module is to provide the learners with basic digital knowledge. This knowledge serves as a basis for acquiring further skills and abilities with regard to the constant changes in the digital market. In addition, the module should make it easier for learners to get started with various E-Health applications that are still unknown to them. As part of the module, the learners acquire analytical skills that enable them to obtain information independently and to professionally check this information for accuracy. In addition, the learners are taught skills in data management, including technical specifications of different tools and the associated legal regulations. The module includes a detailed introduction to the various components of E-Health. The trainees learn how to use electronic patient files (EPA) and telemedicine. Different E-Health Apps and wearables are presented, addressing the benefits and potential issues associated with their use.

Furthermore, the participants become acquainted with big data and artificial intelligence. Finally, they are introduced to cyber security and data protection. The module provides a detailed introduction to the modern information and communication technologies (ICT) currently available in healthcare to support the treatment and care of patients.



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Learning outcomes

The learners know and understand:

- that the ongoing digitalization process is the driving force behind a modern and competitive healthcare system and aims to expand the digital health skills of citizens
- how the health system works, they support the diagnostic and therapeutic process, use the latest digital technologies and expand communication skills
- the functions, areas of application and goals of digital technologies in healthcare
- how to deal with hardware and software (standard applications in care, administration and electronic communication), have knowledge and experience in these
- the importance of the ability to obtain and use information (including privacy and security of personal data)

The learners are able to:

- use information and communication technologies (computers, applications, smartphones, tablets)
- deal with unexpected emergency situations - e.g. interruptions in communication or in the system; they do not interrupt the communication between patient, nursing staff and doctor
- operate the electronic medical documentation system, conduct video consultations (telematics)
- use the telemonitoring tools (application software) available in a given medical unit



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



The learners have social skills:

- they are aware of the speed of change in digital technologies and the need to constantly update knowledge in this area
- they are aware of the risks associated with the use of digital technologies in medical diagnostics and therapy
- they are aware of the need to develop skills in the area of secure digital communication
- they have the ability to search, understand, evaluate and use information on preventive health care and health promotion in society

Content of the module/curriculum

A notice:

Lecture 2 hours.

Workshops using PowerPoint presentations, YouTube resources - instructional materials in the form of videos

- introduction to digital competencies and their importance for education and career
- digital skills in the information policy of the E-Health system
- internet applications and tools for education and media communication (lecture + 2 hour workshop)
- applications and internet tools in healthcare (lecture + 4 hour workshop)
- internet communication technologies - mail, chat, web browser, VoIP (lecture + 4 hour workshop)
- sources of information on the internet, data acquisition and credibility (lecture + 4 hour workshop)
- tools for saving and sharing documents (lecture + 2 hour workshop)
- the problem of network security and problem solving (lecture + 2 hour workshop)
- specialist databases, catalogues, sources of legal information (lecture + 4 hour workshop)
- the use of digital technologies under risk conditions and communication disruptions, equipment failures, etc. (lecture + 3 hour workshop)



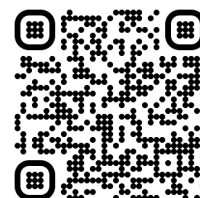
MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Literature The proposed reference material should	adapt to the assumed level of education
	contain the current state of knowledge and research
	reflect and expand on the issues contained in the program content
	enable learners to learn independently
	<p>Babis H., Kompetencje cyfrowe w polityce innowacyjnej Polski i Unii Europejskiej, „Ekonomiczne Problemy Usług” nr 2/2018 (131), t. 1.</p> <p>Mazurek G., Transformacja cyfrowa, Wydawnictwo Naukowe PWN, Warszawa 2020.</p> <p>Cader A., Współczesne technologie informatyczne – kanon rozwoju społeczeństwa, Wydawnictwo Społecznej Akademii Nauk, Łódź-Warszawa 2017.</p> <p>Liderman K., Bezpieczeństwo informacyjne, nowe wyzwania, Wydawnictwo Naukowe PWN, Warszawa 2017.</p> <p>Przewodniki dla pakietu MS Office, www.support.microsoft.com/pl-pl/office/przewodniki-szybki-start-dla-pakietu-office-25f909da-3e76-443d-94f4-6cdf7dedc51e.</p>

Form of acquisition of the credit points: Final examination



Link to the introductory video



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



3

Module 2: Prevention of demotivation at work

Total work load of learners	Realized hours with the participation of the teacher	30
	Time for individual work by the learners	20
	Time required to prepare for the assessment process (e.g. test, final presentation)	15

Module description

There is a link between demotivation/burnout and excessive workload; making decisions under pressure, taking responsibility for the health and life of other people, always willing to help, shift work, excessive working hours. The aim of the module is to familiarize the trainees with the risk factors of professional burnout, to provide them with the skills required to recognize and understand them, and to counteract the phenomenon of burnout.

Learning outcomes

The learners know and understand:

- how to use their knowledge to counteract demotivation and burnout
- how to recognize mental stress
- how to develop assertiveness
- how to create a safe and healthy work environment
- how to develop a clear career path



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



The learners are able to:

1. in the field of work organization:

- manage their working hours
- manage their workplace using available equipment
- work together in a team and to share teamwork

2. in the field of self-realization:

- plan their own vocational training
- consciously choose a professional specialization
- choose skillfully qualification courses and specialization courses

3. in the area of communication:

- develop skills to communicate with physicians and other healthcare professionals
- communicate their needs and expectations in the area of motivation (recognize their personal motivation factors)

The learners have social skills:

- they understand the importance of the ethos of the nursing profession in society
- they understand the importance of professional ethics as a factor that determines the efficiency and comfort of work
- they understand the challenges of teamwork

Content of the module/curriculum

- labor law: basic concepts and definitions in relation to personnel policy
- legal bases for practising the nursing profession (professional requirements, qualification procedures)



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- basic issues:
 - a. motivation and individual motivation of employees
 - b. demotivation
- motivational theories: benefits, limitations, practical application
- the practice of motivation component I: economic factors. Compensation components and principles of effectiveness of motivation through remuneration
- the practice of motivational component II: task factors. Appropriate task organization and coordination with the skills of the employee as motivational elements
- the practice of motivational component III: social factors. The basis for creating a good working atmosphere and building relationships in the team
- the practice of motivational component IV: developmental factors; professional development and competence development. Creation of a personal development path
- demotivation: the importance and effects of demotivating factors
- burnout: theories and countermeasures
- time management: working and rest time
- teamwork: organization and efficiency
- organizational culture in the motivation process
- professional ethics. the importance and role of ethics in the personal and professional sphere

Literature The proposed reference material should:	adapt to the assumed level of education
	contain the current state of knowledge and research
	reflect and expand on the issues contained in the program content
	enable learners to learn independently



Form of acquisition of the credit points: Final examination

Link to the introductory video



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



3

Module 3: Human-robot-human interaction

Total work load of learners	Realized hours with the participation of the teachers	30
	Time for individual by the learners	20
	Time required to prepare for the assessment process (e.g. test, final presentation)	15

Module description

The demographic change observed in recent decades, which implies a change in the demographic structure and the expansion of the oldest age cohorts, and the consequent shortage of skilled workers, lead to the search for solutions to automate subsequent sectors of the labor market. In parallel with these processes, an increasing technologization of all domains of professional and private life is being witnessed, and the proportion of individuals who extensively enjoy the benefits of the technological revolution is constantly growing.

The combination of these factors is conducive to the development of social robotics and research into the interactions between humans and modern, often smart devices. Studies in the field of human-robot-human interaction focus on the determinants of the relationship of human communication to the robot/bot, as well as the understanding, design and evaluation of this interaction in order to develop appropriate robots in the best possible way and to enable them to implement interactive tasks in the environment of human activity (Rudnicka 2014, p. 53).

Research on human-robot-human interaction is interdisciplinary and combines the scientific achievements of robotics, engineering, computer science, cognitive science and psychology. In these areas, research is increasingly focused on human interactions with the so-called social robots, which "exist mainly to interact with humans" (Kirby, Forlizzi, Simmons 2010, p. 322) in order to elicit social responses in them (Leite, Martinho, Paiva 2013) or to influence each other



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



(Fong, Thorpe and Baur 2003, p. 257).

The use of robots can also be observed in the medical services market. These robots are able to perform surgical procedures, detect abnormalities in imaging examinations or talk to patients. The objective of the module is to familiarize the trainees with the latest medical techniques using state-of-the-art technologies, alongside the implementation of such solutions in the medical services market.

Learning outcomes

The learners know and understand:

- the functioning of systems that support the diagnostic and therapeutic processes through the application of state-of-the-art technologies
- commonplace and cost-effective technologies from everyday professional settings, the so-called chatbots and voicebots, which are already operating on the medical market, examples are bots that monitor compliance with medical recommendations: abu Robot, MyTherapy, Pilis Reminder, Text systems for collecting doctor's conversations: Ada, YourMD, SayKara, MedWhat, and systems that enable voice calls: Health Navigator and Infermedica Symptom Checker
- the solutions available on the local markets
- the special systems for certain patient groups (for acute and chronic diseases)
- systems with different functionalities (diagnostic, therapeutic, motivating, advisory, calculating, and others)

The learners are able to:

- indicate the best applications/systems that meet the patient's needs
- indicate the best applications/systems that suit the patient's abilities (financial, digital skills)
- indicate the best applications/systems that are suitable for the patient's treatment



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



The learners have social skills:

- they are aware of the speed of technological change and the need to constantly update knowledge in this area
- they are aware of the risks associated with the use of technology for diagnostic and therapeutic procedures
- they are aware of the psychological consequences of such applications for the patient

Content of the module/curriculum

- basics of human-robot-human interaction with special emphasis on the psychological aspect of such an application:
 - a. the risk of misunderstandings in communication
 - b. the psychological well-being of the patient during contact with a bot or other type of robot (there is a risk that the patient may experience a sense of objectification resulting from the lack of interaction with a real person)
 - c. a change in societal thinking in connection with the change in the model of medical services and consultation
- basics of interpersonal communication. The ability to talk to the patient in such a way as to convince them to use an application / system that meets their needs and possibilities (financial, digital skills)
- fundamentals of human relationships with the so-called social robots
- in-depth discussion of the machines and bots available on the market. At the moment, we are mainly talking about Mabu Robot, My Therapy, Pilis Reminder, text-based systems for collecting medical patient data: Ada, YourMD, SayKara, MedWhat, and voice conversation systems: Health Navigator and Infermedica Symptom Checker. Due to the rapid pace of technological change, it is imperative to consistently update this knowledge and explore emerging technologies.
- training in social pedagogy and in the use of the latest medical technologies.



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).



Literature The proposed reference material should:	adapt to the assumed level of education
	contain the current state of knowledge and research
	reflect and expand on the issues contained in the program content
	enable learners to learn independently
Bibliography:	<p>Rudnicka P, Psychologiczne aspekty interakcji człowiek - robot, Medical Robota Report, Nr. 3/2014, s. 53.</p> <p>Stock-Homburg, R. Survey of Emotions in Human–Robot Interactions: Perspectives from Robotic Psychology on 20 Years of Research, International Journal of Social Robotics Nr 14/2022, s. 389–411, https://doi.org/10.1007/s12369-021-00778-6.</p> <p>Kirby R, Forlizzi J, Simmons R., Affective social robots, Robotics and Autonomous Systems Nr. 58(3)/2010, s. 322.</p> <p>Leite I, Martinho C, Paiva A., Social robots for long-term interaction: a survey, International Journal of Social Robotics, Nr. 5(2)/2013, s. 291–308.</p>

Form of acquisition of the credit points: Final examination



Link to the introductory video



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



3

Module 4: Telecare / Telenursing

Total work load of learners	Realized hours with the participation of the teacher	30
	Time for individual work by the learners	20
	Time required to prepare for the assessment process (e.g. test, final presentation)	15

Module description

The pandemic has changed the way patients communicate with healthcare professionals. Personal contact has increasingly been replaced by instant messaging and telephone consultations. The change in the communication model forces the need to expand the educational system of medical personnel, with particular emphasis on verbal communication strategies. The pandemic has changed the form of communication from the patient to the healthcare professional.

The aim of the module is to familiarize learners with language and communication strategies, increase the effectiveness of telephone/digital patient counselling, as well as raise their awareness of the legal risks associated with patient conversations and the attribution of blame to medical personnel for health-related issues.

Learning outcomes

The learners know and understand:

- how the structure of a telephone or instant messaging communication is built and the dynamics behind it. They are aware of the lack of non-verbal communication as well as facial expressions, so they know the meaning and weighting of verbal messages



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- know the important strategies and linguistic mechanisms of telecare
- have basic knowledge of interpersonal communication
- the establishment of safe and healthy relationships with patients

The learners are able to:

- build a relationship with the patient that gives them a sense of priority and security in the conversation
- protect their boundaries in a situation where the patient wants to exceed them
- interpret the information provided by the patient orally in his presence to ensure that the patient has understood the information provided
- obtain confirmation from the patient about the accuracy of his statements (for legal certainty)

• The learners have social skills

- are aware of their professional role, including adherence to professional ethics rules and advocating for others to do the same, both during telecare and direct interactions.

Content of the module/curriculum

- interpersonal communication - fundamental issues. The structure and dynamics of communication over the phone:
 - a. absence of non-verbal messages
 - b. absence of mimic messages
 - c. therefore, the emphasis on verbal communication
- advanced communication questions with special emphasis on crisis management (the so-called difficult patient)
- in-depth knowledge of necessary language strategies and mechanisms



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).



- content that is assumed to be evident by the patient and medical personnel (presupposition mechanism)
- implied content that the patient misinterprets or may misinterpret (implied mechanism)
- practical assignments/lessons in building linguistic messages to patients (6 lessons)
- practical assignments/lessons in which the learners compose different types of voice verbal messages and the teachers identify the hidden communication risks related to the context of misinterpretation of words or misunderstanding of intentions
- a detailed exploration and discussion of the strategy that conveys the image of a competent
- assignments/lessons for verbal interpretation of the spoken content, i.e. repetition of established topics in one's own words in the presence of the patient. Particular attention should be paid to raising awareness among trainees of legal issues such as how messages to patients should be formulated in order to protect themselves from possible negative legal consequences.
- advanced strategies to combat the existing nurse stereotype
- in-depth legal knowledge of teleconsultation
- ethical aspects of telecare/telenursing



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



JAGIELLONIAN UNIVERSITY
IN KRAKÓW



Co-funded by the
Erasmus+ Programme
of the European Union

Literature The proposed reference material should:	adapt to the assumed level of education
	contain the current state of knowledge and research
	reflect and expand on the issues contained in the program content
	enable learners to learn independently

Form of acquisition of the credit points: Final examination



Link to the introductory video



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



3

Module 5: Environmental protection in the process of care

Total work load of learners	Realized hours with the participation of the teacher	30
	Time for individual work by the learners	15
	Time required to prepare for the assessment process (e.g. test, final presentation)	15

Module description

The European idea of the "Green Deal" also has an impact on the practice of healthcare facilities.

The acquisition of environmental awareness in health care is one of the important aspects of modern professional training of medical personnel. Ecological competencies are a combination of knowledge and skills for the entirety of complex interrelationships: Environmental-Economic-Hygiene. They engage in the discovery, comprehension, evaluation, and utilization of environmental protection information in the healthcare sector.

Ecological competence in health care facilities means that a person knows where to find the necessary information for environmental protection, as well as the ability to extract it from different sources of information and check it for accuracy and applicability.

Ecological competence consists of a combination of different environmental competences in health care.



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Learning outcomes

The learners know and understand:

- the context of the dilemmas of modern civilization in relation to civilization diseases and their prevention
- the management of a healthy lifestyle
- how the environmental protection system works in health care facilities, using the latest digital and communication technologies
- the functions, areas of application and tasks of the devices used and environmental protection measures in the health care sector, including with a view to reducing their harmful effects on people and the environment
- the use of active pharmaceutical ingredients with a view to optimising their consumption and reducing harmful emissions and waste
- the importance of the ability to acquire and use information on all aspects of environmental protection in healthcare facilities

The learners are able to:

- use information and communication technologies (computers, applications, smartphones, tablets), select the appropriate sources of information on environmental hazards and carry out their critical analysis and synthesis
- operate electronic medical documentation systems and conduct video consultations (telematics)
- use the telemonitoring tools available in a particular medical unit (application software)



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



The learners have social skills:

- they are aware of the importance of knowledge in the field of environmental protection for practical application
- to observe and reflect on human behaviour in order to expand their competences in the field of human influence on the environment
- they are aware of the risks associated with the use of environmental protection tools in medical diagnosis and therapy
- have the ability to search, understand, evaluate and use information on environmental protection and occupational hygiene in the healthcare sector

Content of the module/curriculum

A notice:

Lecture - 2 hours

Seminar (hereinafter: Sem.) - Workshop classes (2-4 hours seminar) with PowerPoint presentations, teaching materials in the form of videos, e-learning

- global ecological problems - fundamental threats and challenges of the present (2 hour lecture)
- concepts and indicators of sustainable development - review of positions; management of renewable and non-renewable resources, circular economy (2 hour lecture)
- what is the "Green Deal" and how will it be implemented? (2 hour lecture)
- ecological consciousness as a form of social consciousness and possibilities of its formation (4 hour Sem.)
- the role of the media in shaping citizens' ecological awareness, shaping pro-ecological attitudes (2 hour Sem.)
- ecological waste management in medical care facilities; Disposal problems (4 hour lectures)
- ecological use of resources (e.g. water, fuel, energy) to reduce emissions and waste that are harmful to the environment and health in the practice of medical care facilities (2 hour lecture)
- promotion of locality and regionality as environmentally and health-friendly alternatives (4 hour Sem.)



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).



<p>Literature</p> <p>The proposed reference material should:</p>	<p>adapt to the assumed level of education</p> <p>contain the current state of knowledge and research</p> <p>reflect and expand on the issues contained in the program content</p> <p>enable learners to learn independently</p>
	<p>Godlewska-Lipowa W., Ostrowski J., Problemy współczesnej cywilizacji i ekologii, Wydawnictwo UWM, Olsztyn 2007. Wolański N., Ekologia człowieka, tom I i II, PWN, Warszawa 2012.</p> <p><u>Papuziński A., Świadomość ekologiczna w świetle teorii i praktyki (Zarys politologicznego modelu świadomości ekologicznej), „Problemy Ekorozwoju” 2016, Vol. 1, nr 1, s. 33-40.</u></p> <p>Sobczyk W., Edukacja ekologiczna i prozdrowotna, „Prace Monograficzne” nr 293, Wydawnictwo Naukowe Akademii Pedagogicznej, Kraków 2003.</p>



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



JAGIELLONIAN UNIVERSITY
IN KRAKÓW



Co-funded by the
Erasmus+ Programme
of the European Union

Badora K., Ekologiczne zdrowie publiczne – model na miarę XXI wieku, „Zdrowie Publiczne i Zarządzanie” 2012, Vol. 10, nr 1.
<https://wios.rzeszow.pl/wp-content/uploads/2015/10/Stan-srodowiska-zdrowie-201015.pdf>

Gadomska J., Sadowski T., Buczkowska M., Ekologiczna żywność jako czynnik sprzyjający zdrowiu (Ecological food as a health-promoting factor), „Probl Hig Epidemiol” 2014, 95(3): 556-560.

Sobczyk W., Aspekty społeczne i środowiskowe gospodarki odpadami, Wydawnictwo AGH, Kraków 2016.

Form of acquisition of the credit points: Final examination



Link to the introductory video



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



4

Conclusion

This catalog summarizes new, innovative modules and corresponding curricula that were drawn up and developed as part of the Erasmus+ project "MEDIC". This catalog is an "Open Education Resource" and may be reproduced and adapted. The teaching staff can add their own examples, activities and stories to adapt the modules to their individual situation or workplace and give them relevance.

Each module contains:

- Lesson plans and schedules
- Teaching and learning materials
- Descriptions of activities
- Information about required work equipment

The curricula are designed to be user-friendly and use clear and simple language. They provide practical guidance and materials for teaching staff.

The entire curriculum is based on the following teaching and learning principles:

- Learning centered approach
- Thematic approach
- Interactive approach
- Dialogical approach.



MEDIC - The Attribution-ShareAlike, or CC-BY-SA, license builds upon the CC-BY by requiring that the user license any new products based on the original under identical terms (in addition to crediting the original author).

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

C

I

D

E

W