



Syllabus 2017/18

Description of the course

Module/Course	Parenteral and Enteral Nutrition		Group of detailed education results	
			Group code B E	Group name Scientific Basis of Medicine. Nonsurgical Clinical Sciences
Faculty	Medicine English Division			
Major	Medicine			
Specialties	N/A			
Level of studies	Uniform magister studies X 1 <sup>st</sup> degree studies <input type="checkbox"/> 2 <sup>nd</sup> degree studies <input type="checkbox"/> 3 <sup>rd</sup> degree studies <input type="checkbox"/> postgraduate studies <input type="checkbox"/>			
Form of studies	X full-time X part-time			
Year of studies	from 4 <sup>th</sup> to 5 <sup>th</sup>	Semester	X Winter X Summer (to be chosen by the student)	
Type of course	<input type="checkbox"/> obligatory <input type="checkbox"/> limited choice X free choice / elective			
Course	X major <input type="checkbox"/> basic			
Language of instruction	<input type="checkbox"/> Polish X English <input type="checkbox"/> other			

\* mark  with an X

Number of hours

Form of education

Unit teaching the course	Lectures (L)	Seminars (SE)	Auditorium classes (AC)	Major Classes – not clinical (MC)	Clinical Classes (CC)	Laboratory Classes (LC)	Classes in Simulated Conditions (CSC)	Practical Classes with Patient (PCP)	Specialist Classes – magister studies (SCM)	Foreign language Course (FLC)	Physical Education obligatory (PE)	Vocational Practice (VP)	Self-Study (Student's own work)	E-learning (EL)
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Winter Semester

2nd Department of General and Oncological Surgery

30

Summer Semester



2nd Department of General and Oncological Surgery		30												
TOTAL per year:														
2nd Department of General and Oncological Surgery		30												
<p><b>Educational objectives (max. 6 items)</b></p> <p>C1. To make the student know physiological requirements of the human organism for basic nutrients, pathophysiological mechanisms and clinical picture of malnutrition, and its consequences for health.</p> <p>C2. To make the student understand indications for parenteral and enteral nutrition, and the principles of choosing and making artificial feeding access.</p> <p>C3. To stimulate the student's awareness of recognizing malnutrition and understanding the necessity of preventing its development in illness.</p> <p>C4. To develop the student's skills in planning and administering parenteral and enteral nutrition.</p> <p>C5. To prepare the student to diagnose and treat complications of parenteral and enteral nutrition.</p>														
<b>Education result matrix for module/course in relation to verification methods of the intended education result and the type of class</b>														
Number of course education result	Number of major education result	Student who completes the module/course knows/is able to	Methods of verification of intended education results (forming and summarising)	Form of didactic class <i>**enter the abbreviation</i>										
W 01	B.W18 B.W19 B.W20	explains the organism's requirements for energy and main nutrients, and how they are increased in typical diseases and conditions	oral response, debate, test	SE										
W 02	B.W18 B.W19 B.W20	characterizes the consequences of malnutrition for specific systems and organs, and their influence on patient's health	oral response, debate, test	SE										
W 03	B.W18 B.W19 B.W20	describes the principles of preventing malnutrition associated with surgical and oncological treatment	oral response, debate, test	SE										
W 04	B.W18 B.W19 B.W20	describes the principles of treating and preventing malnutrition	oral response, debate, test	SE										
W 05	B.W18 B.W19 B.W20	names different routes of parenteral and enteral nutrition, and their possible complications	oral response, debate, test	SE										
W 06	B.W18 B.W19 B.W20	discusses the possibilities of treating and preventing malnutrition in hospital and at home	oral response, debate, test	SE										
U 01	E.U25	diagnoses malnutrition and evaluates the risk of its developing, based on the patient's history, physical examination and selected scoring systems	case analysis, debate, test	SE										
U 02	E.U25	fills in medical records of nutritional evaluation and treatment	demonstration, test	SE										
U 03	E.U25	qualifies a patient for nutritional intervention and chooses the adequate route	case analysis, debate, test	SE										
U 04	E.U25	plans the right type and amount of nutritional formula, and the mode of its administration in typical situations	oral response, debate, test	SE										



U 05	E.U25	uses aseptic techniques for parenteral and enteral nutrition	oral response, demonstration, test	SE
U 06	E.U25	identifies common complications of parenteral and enteral nutrition, and proposes adequate management	oral response, debate, test	SE
K 01	N/A			
K 02	N/A			

\*\* L - lecture; SE - seminar; AC – auditorium classes; MC – major classes (non-clinical); CC – clinical classes; LC – laboratory classes; SCM – specialist classes (magister studies); CSC – classes in simulated conditions; FLC – foreign language course; PCP practical classes with patient; PE – physical education (obligatory); VP – vocational practice; SS – self-study, EL – E-learning.

Please mark on scale 1-5 how the above effects place your classes in the following categories:  
communication of knowledge, skills or forming attitudes:

Knowledge: 5

Skills: 4

Social competences: N/A

**Student's amount of work (balance of ECTS points)**

Student's workload (class participation, activity, preparation, etc.)	Student Workload (h)
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1. Contact hours:	30
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2. Student's own work (self-study):	9
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Total student's workload	39
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ECTS points for module/course	1,5
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Comments	
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**Content of classes** (please enter topic words of specific classes divided into their didactic form and remember how it is translated to intended educational effects)

**Lectures**

N/A

**Seminars**

1. Introduction. History of parenteral and enteral nutrition. Contemporary terminology.
2. Different types and causes of malnutrition.
3. Consequences of malnutrition.
4. Evaluation of patient's nutritional status.
5. Indications for nutritional intervention.
6. Demand for energy and nutrients.
7. Refeeding syndrome.
8. Nutrition therapy in different diseases and conditions.
9. Methods of nutritional intervention.
10. Planning nutrition therapy.
11. Oral feeding (dietician consulting, oral nutritional supplements).
12. Indications for enteral nutrition.
13. Different access routes for enteral feeding and principles of their placement.
14. Different types of commercial enteral formulas. The individual choice of enteral formula.
15. Principles of administration of enteral nutrition.
16. Complications of enteral nutrition.



17. Indications for parenteral nutrition.
18. Different types of venous access and principles of their placement.
19. Composition of mixtures for parenteral nutrition and commonly added supplements.
20. Types of products for parenteral nutrition: Ready-To-Use (RTU) multichamber bags vs. individually prepared mixtures.
21. Principles of administration of parenteral nutrition.
22. Complications of parenteral nutrition.
23. Organization of nutrition therapy in hospital and hospice care services. Nutrition Support Teams.
24. Medical records regarding nutrition therapy.
25. Home enteral and parenteral nutrition.
26. Evaluation of nutritional status: sample cases.
27. Planning enteral nutrition: sample cases.
28. Planning parenteral nutrition: sample cases.
29. Demonstration of sample products for enteral and parenteral nutrition, and the method of their administration.
30. Final test.

**Practical classes**

N/A

**Other**

N/A

**Basic literature** (list according to importance, no more than 3 items)

1. Sobotka L (Ed.): Basics in Clinical Nutrition. 4<sup>th</sup> ed. Galen 2011
2. Garden OJ (Ed.): Principles and Practice of Surgery. Chapter 3. Elsevier 2007, 2012

**Additional literature and other materials** (no more than 3 items)

1. [www.espen.org](http://www.espen.org) – the website of European Society for Clinical Nutrition and Metabolism

**Didactic resources requirements** (e.g. laboratory, multimedia projector, other...)

computer, multimedia projector, Internet

**Preliminary conditions** (minimum requirements to be met by the student before starting the module/course)

Credit for basic theoretical subjects from the initial years of studies

**Conditions to receive credit for the course** (specify the form and conditions of receiving credit for classes included in the module/course, admission terms to final theoretical or practical examination, its form and requirements to be met by the student to pass it and criteria for specific grades)

Attendance to the course and obtaining at least 60% score from the final test

**Grade:**

**Criteria** (only for courses/modules ending with an examination)



Very Good (5.0)	N/A
Good Plus (4.5)	
Good (4.0)	
Satisfactory Plus (3.5)	
Satisfactory (3.0)	

**Name and address of module/course teaching unit, contact: telephone and e-mail address**

2nd Department of General and Oncological Surgery  
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**Coordinator / Person responsible for module/course, contact: telephone and e-mail address**

Adam Skalski, MD, PhD

**List of persons conducting specific classes: full name, degree/scientific or professional title, discipline, performed profession, form of classes.**

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**Date of Syllabus development**

29 May 2017

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**Syllabus developed by**

Adam Skalski, MD, PhD

**Signature of Head of teaching unit**

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**Signature of Faculty Dean**

Wrocław Medical University  
FACULTY OF MEDICINE  
VICE-DEAN FOR STUDIES IN ENGLISH  
Prof. Andrzej Hendrich, PhD

