Pomorski Uniwersytet Medyczny w Szczecinie

Appendix to Decision No. 4/2020

Pomeranian Medical *University* in *Szczecin[PUM]*

COURSE SYLLABUS

General information

Name of Course: Internal diseases - diabetology	
Type of course	Compulsory
PUM Faculty	Faculty of Medicine and Dentistry
Field of study	Medicine
Specialization	-
Level of study	Long-term studies
Form of study	Full-time
Year of study /semester	IV, winter and summer semesters
Number of ECTS credits allocated	1
Forms of teaching (number of hours)	Lecture-4 h/seminar-4 h/exercises-12 h
Methods of verification and assessment of learning outcomes *	☒Graded credit: ☐ descriptive credit ☒ Test ☐ practical credit ☒ oral credit ☐ credit without grade ☐ final exam: ☐ descriptive credit ☐ test credit ☐ practical credit ☐ oral credit
Head of Unit	*Prof. dr hab n. med. Lilianna Majkowska, MD, Prof. Ph.D Professor of Pomeranian Medical University*
Teaching assistant professor or person responsible for the course	*Dr n. med Aneta Fronczyk, MD, Ph.D* *anetafk@wp.pl* *tel. 91 425 38 69*
Name and contact details of unit	*Department of Diabetology and Internal Diseases* *Pomeranian Medical University* *72-010 Police, Siedlecka 2*
Unit's website	*http://www.pum.edu.pl/wydzialy/wydzial-nauk-o-zdrowiu/ clinic-diabetology-and-internal-diseases*
Language of instruction	Polish

*tick as appropriate, changing ☐ to ☒.

Detailed information

Course objectives		To acquaint a student with the epidemiology, pathogenesis, clinical manifestations and diagnosis of different types of diabetes. To impart knowledge about diabetes treatment and self-management in diabetes. To familiarize the student with the distant and acute complications of diabetes.
Preliminary requirements in terms of	Knowledge	Basic skills in anatomy, physiology, biochemistry, pharmacology and laboratory diagnosis.
	Skills	Ability to analyze and make inferences, lead discussions.
	Social competences	Ability to cooperate in a group, personal culture, responsibility for assigned tasks.

LEARNING OUTCOMES			
Number of learning outcome	**A student who has completed of the COURSE knows/can:**	**SYMBOL (reference to) learning outcomes for the field of study**	**Method of verifying the learning outcomes***
W01	A student knows the environmental and epidemiological conditions of the most common diseases	E.W1	ZU, ZT, O
W02	A student knows and understands the causes, symptoms, principles of diagnosis and therapeutic management in relation to the most common internal diseases occurring in adults and their complications: endocrine system diseases, including various types of diabetes and metabolic syndrome, hypoglycemia, obesity, dyslipidemia	E.W7	ZU, ZT, O
W03	A student knows the types of biological materials used in laboratory diagnostics and the principles of collecting material for tests	E.W37	ZU, O
W04	A student knows and understands the capabilities and limitations of emergency laboratory testing	E.W39	ZU, ZT, O
W05	A student lists indications for implementation of monitored therapy	E.W40	ZU, ZT, O
U01	A student performs medical interview with adult patient	E.U1	ZU, ZT, O, S
U02	A student performs a complete and focused physical examination of the adult patient	E.U3	ZU, ZT, O, S

U03	A student assesses and describes the patient's somatic and psychological state	E.U13	ZU, ZT, O, S
U04	A student recognises life-threatening conditions	E.U14	ZU, ZT, O, S
U05	A student plans diagnostic, therapeutic and prophylactic procedures	E.U16	ZU, ZT, O, S
U06	A student performs an analysis of possible side effects of individual drugs and drug interactions	E.U17	ZU, ZT, O, S
U07	A student suggests individualization of current therapeutic guidelines and other methods of treatment in case of ineffectiveness or contraindications to standard therapy	E.U18	ZU, ZT, O, S
U08	A student qualifies the patient for home and hospital treatment	E. U20	ZU, ZT, O, S
U09	A student interprets laboratory tests and identifies causes of deviations	E. U24	ZU, ZT, O, S
K01	A student accepts the need for ethical standards	K01	O
K02	A student can maintain medical confidentiality	K14	O

Table of learning outcomes in relation to the form of classes

Number of learning outcome	Learning outcomes	Form of the classes						
		Lecture	Seminar	Practical	Clinical exercises	Simulations	E-learning	Other forms
W01	E.W1		X	X			X	
W02	E.W7		X	X		X	X	
W03	E.W37		X	X		X	X	
W04	E.W39		X	X		X		
W05	E.W40		X	X		X		
U01	E.U1			X		X		
U02	E.U3			X		X		
U03	E.U13			X		X		
U04	E.U14		X	X		X		
U05	E.U16		X	X		X		
U06	E.U17		X	X		X	X	
U07	E.U18		X	X		X	X	
U08	E. U20			X		X		
U09	E. U24		X	X		X		
K01	K01			X		X		
K02	K14			X				

TABLE OF CURRICULUM			
Curriculum number	**Curriculum content**	**Number of hours**	**Reference to the learning outcomes for the CLASSES**
Lectures in the form of e-learning			
TK01	Epidemiology, pathogenesis, clinical manifestations, current division of diabetes.	1	W01 W02 W03
TK02	Basics of insulin therapy. Insulin therapy in type 2 diabetes - permanent, intermittent.	1	W02 U05 U06 U07 U08
TK03	Principles of insulin therapy in type 1 diabetes. Insulin pumps and modern monitoring technologies.	1	W02 U05 U06 U07 U08
TK 04	Diabetic neuropathy. Diabetic foot syndrome.	1	W02 U05 U07 U08
Seminars			
TK01	Risks associated with disorders of carbohydrate metabolism and diagnosis of these disorders. Therapeutic rationale in different types of diabetes. Criteria of diabetes compensation.	1	W01 W02 W03 U05 U09
TK 02	Treatment of diabetes. Drugs used in the treatment of type 2 diabetes. Basics of insulin therapy in type 1 diabetes and type 2 diabetes.	1	W02 U05 U06 U07 U08
TK03	Acute hyperglycemic states: ketoacidosis, hyperglycemic-hypermolytic state, lactate acidosis. Hypoglycemia - causes, clinical manifestations, prevention and treatment.	1	W02 W03 W04 W05 U03 U04 U05 U06 U07 U08 U09
TK04	Distant complications of diabetes mellitus of the microangiopathy and macroangiopathy types - division, clinical symptoms, diagnosis, treatment and management.	1	W02 U05 U07 U08
Practcial Exercises			
TK01	Definition of diabetes and current WHO classification of diabetes and disorders of carbohydrate metabolism. Epidemiology and	3	W01 W02 W03

	pathogenesis of different types of diabetes. Criteria for diagnosis of diabetes, clinical symptoms. Oral glucose tolerance test: methods of performance, interpretation, indications, contraindications. Current criteria of diabetes compensation: glycemia, blood pressure, lipids.		U01 U02 U05 U09 K01 K02
TK02	Pathogenetic rationale of diabetes treatment. Lifestyle modification (diet, exercise). Antidiabetic agents (sulphonylurea derivatives, biguanides, glinides, alpha-glucosidase inhibitors, thiazolidinediones, GLP-1 analogues, DPP-4 inhibitors, SGLT-2 inhibitors) - mechanism of action, indications and contraindications for use. Principles of insulin therapy in type 1 and type 2 diabetes.	3	W02 U01 U05 U06 U07 U08 K01 K02
TK03	Hypoglycemia - the most common causes, clinical symptoms, prevention, management. Ketoacid and hyperosmolar coma - causes, clinical symptoms, diagnosis and treatment, including the different clinical courses of coma in elderly patients. Differentiating keto and hyperosmolar coma. Lactate coma - the causes, clinical symptoms, diagnosis and treatment.	3	W02 W03 W04 W05 U01 U02 U03 U04 U05 U06 U07 U08 U09 K01 K02
TK04	Long-term complications of diabetes of microangiopathy and macroangiopathy type - pathogenesis, division, clinical symptoms, prevention, diagnostics and treatment. Diabetic foot syndrome.	3	W02 W03 U01 U02 U03 U05 U07 U08 K01 K02

Recommended Literature:
1. Interna Szczeklika 2019, Piotr Gajewski, Andrzej Szczeklik, Wydawnictwo Medycyna Praktyczna, Kraków 2019.
2. Davidson Internal Medicine. S.H. Ralston, M.W.J. Strachan, I.D. Penman, R.P. Hobson. Edra Urban & Partner Publishing, Wrocław 2020.

Student workload	
Form of student workload (class participation, activity, report preparation, etc.)	Student workload [h]. In the teacher's assessment (opinion)

Contact hours with the teacher/instructor	20
Preparation for exercise/seminar	8
Reading the indicated literature	
Writing a lab/exercise report/preparing a project/reference, etc.	
Preparation for a test/short test	
Preparing for the exam	
Other	
Total student workload	28
ECTS credits	1
Notes	

*Methods of verification of learning outcomes:
ZU - oral credit
ZT - test credit
O - assessment of student's activity and attitude
S - testing of practical skills