



INTEGRATED ACADEMIC
STUDY OF PHARMACY
THIRD YEAR OF STUDY

2025/2026.

NUTRITIONAL SUPPLEMENTS

Course unit:

NUTRITIONAL SUPPLEMENTS

The course is evaluated with 5 ECTS. There are 3 classes of active teaching per week (1 class of lectures, 1 other active classes and 1 classes of work in a small group).

TEACHERS AND ASSOCIATES:

	Name	Email	Title
1.	Dalibor Stajić	stajicdalibor@yahoo.com	Associate Professor
2.	Nela Đonovic	ndjonovic@fmm.kg.ac.rs	Full Professor
3.	Marija Sekulić	msekulic82@gmail.com.com	Associate Professor
4.	Dušan Lj. Tomović	dusantomovic@medf.kg.ac.rs	Assistant Professor

COURSE STRUCTURE:

Modul	Name of the course module	Weeks	Teaching Lectures (weekly)	Practice (weekly)	Seminars (weekly)	Teacher – in charge
1	Nutritional supplements	15	1	1	1	Prof. dr Dalibor Stajić
		15	15	15	15	Σ 15+15+15=45

ASSESSMENT:

The grade is equivalent to the number of points earned (see table). Points are earned as follows:

PRE-EXAM ACTIVITIES:

-Activity during class: In this way, the student can gain up to 30 points.

FINAL EXAM: Final test: 70 points.

ΜΟΔΥΛ		MAXIMUM POINTS	
		activity during classes	Final exam
1	Nutritional supplements		
Σ		30	100

The final grade is formed as follows:

In order to pass the course, the student must obtain a minimum of 51 points, pass all modules and the final exam.

In order to pass the course, the student must:

1. obtain more than 50% of the points in the module (more than 50% of the points provided for the teaching activity in module),
2. pass the final exam (final test), i.e. have more than 50% correct answers.

The method of evaluation based on the points obtained is shown in the following table:

Total number of points	Description	Grade
0-50	Not passed	5
51-60	Six	6
61-70	Seven	7
71-80	Eight	8
81-90	Nine	9
91-100	Ten	10

FINAL EVALUATION

PRE-EXAM ACTIVITIES

**ACTIVITY DURING
CLASSES
0-30 POINTS**

FINAL EXAM

**FINAL TEST
0-70 POINTS**

LECTURES AND PRACTICE

WEDNESDAY

BLUE HALL (H44)

15.45-18.00

[Schedule of lectures, practical classes and tests – academic calendar](#)

LITERATURE:

Module	The name of the textbook	Authors	Publisher	Library
Nutritional supplements	Textbook of Medical Physiology, 14th Edition	Hall J. Guyton & Hall	International Edition	
	Oxford Handbook of Nutrition and Dietetics, 3rd Edition	Webster-Gandy J, Madden A, Holdsworth M.	Oxford University Press. 2020.	
	Food Chemistry	Belitz H.	Berlin: Springer. 2009. Elsevier Science. 2020	
	Food toxicology	Helferich W, Winter CK.	CRC Press London	
	Introduction to Human Nutrition, 2th Edition	Gibney MJ, Lanham-New SA, Cassidy A, Vorster HH.	Willey Blackwell Publ., 2009	

All lectures are available on the website of the Faculty of Medical Sciences: www.medf.kg.ac.rs

**THE PROGRAM:
FIRST MODULE NUTRITIONAL SUPPLEMENTS**

TEACHING UNIT 1 (I WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Distribution of body water in the body. Water and electrolyte balance in the body. Health-safe water as an ingredient in nutritional supplements	Distribution of body water in the body. Water and electrolyte balance in the body. Health-safe water as an ingredient in nutritional supplements

TEACHING UNIT 2 (II WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Importance of nutritional supplementation. Development of nutritional supplementation and application of dietary supplements. Basic definitions and divisions of dietary products.	Basic definitions and divisions of dietary products. ISO 17025 standard.

TEACHING UNIT 3 (III WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
The role and place of the pharmacist in the modern application of dietary products. Legal national and international regulation of dietary products	Methods of analysis of dietary products. Energy value of dietary products.

TEACHING UNIT 4 (IV WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Potential impact of dietary products on the human body. Possible positive and negative effects.	Sampling, storage and transport of dietary products.

TEACHING UNIT 5 (V WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Dietary products.	Dietary products. Analyzes of samples.

TEACHING UNIT 6 (VI WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Dietary supplements. Declaring. Health and nutrition claims.	Dietary supplements. Declaring. Health and nutrition claims. Analyzes of samples.

TEACHING UNIT 7 (VII WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Carbohydrates as dietary supplements. Proteins and amino acids as dietary supplements. Mechanisms of digestion and absorption, metabolism.	Carbohydrates as dietary supplements. Proteins and amino acids as dietary supplements. Mechanisms of digestion and absorption, metabolism. Analyzes of samples.

TEACHING UNIT 8 (VIII WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Fats and fatty acids as dietary supplements. Mechanisms of digestion and absorption, metabolism.	Fats and fatty acids as dietary supplements. Mechanisms of digestion and absorption, metabolism. Analyzes of samples.

TEACHING UNIT 9 (IX WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Vitamins-metabolism, sources, recommendations, physiological functions. Hypovitaminosis and hypervitaminosis. Vitamins as dietary supplements.	Vitamins as dietary supplements. Analyzes of samples.

TEACHING UNIT 10 (X WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Minerals-metabolism, sources, recommendations, physiological functions, deficit and excess. Minerals as dietary supplements 1.	Minerals as dietary supplements 1. Analyzes of samples.

TEACHING UNIT 11 (XI WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Minerals-metabolism, sources, recommendations, physiological functions, deficit and excess. Minerals as dietary supplements 2.	Minerals as dietary supplements 2. Analyzes of samples.

TEACHING UNIT 12 (XII WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Dietary products with or from plants. Other dietary supplements. Packaging for packing dietary products.	Dietary products with or from plants. Other dietary supplements. Packaging for packing dietary products. Analyzes of samples.

TEACHING UNIT 13 (XIII WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 1.	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 1.

TEACHING UNIT 14 (XIV WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 2.	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 2.

TEACHING UNIT 15 (XV WEEK):

Teaching lectures + Seminar (2 classes)	Practical classe (1 classe)
Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 3.	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 3. Examples of dietary products on the market.

LESSON SCHEDULE FOR THE SUBJECT NUTRITIONAL SUPPLEMENTS

module	week	Typ	name of the lesson	teacher
1	1	L/S	Distribution of body water in the body. Water and electrolyte balance in the body. Health-safe water as an ingredient in nutritional supplements	Assoc. prof. Dalibor Stajić Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Prof dr. Nela Đonović
		P	Distribution of body water in the body. Water and electrolyte balance in the body. Health-safe water as an ingredient in nutritional supplements	Assoc. prof. Dalibor Stajić Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Prof dr. Nela Đonović
	2	L/S	Importance of nutritional supplementation. Development of nutritional supplementation and application of dietary supplements. Basic definitions and divisions of dietary products.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Asst. proff. Dalibor Stajić
		P	Basic definitions and divisions of dietary products. ISO 17025 standard.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	3	L/S	The role and place of the pharmacist in the modern application of dietary products. Legal national and international regulation of dietary products	Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić Assoc. prof. Marija Sekulić Prof dr. Nela Đonović
		P	Methods of analysis of dietary products. Energy value of dietary products.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić

LESSON SCHEDULE FOR THE SUBJECT NUTRITIONAL SUPPLEMENTS

module	week	Typ	name of the lesson	teacher
1	4	L/S	Potential impact of dietary products on the human body. Possible positive and negative effects.	Prof dr. Nela Đonović Assoc. prof. Dalibor Stajić Asst. prof. Dušan Tomović Assoc. prof. Marija Sekulić
		P	Sampling, storage and transport of dietary products.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	5	L/S	Dietary products.	Assoc. prof. Marija Sekulić Prof dr. Nela Đonović Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
		P	Dietary products. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	6	L/S	Dietary supplements. Declaring. Health and nutrition claims.	Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović
		P	Dietary supplements. Declaring. Health and nutrition claims. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić

LESSON SCHEDULE FOR THE SUBJECT NUTRITIONAL SUPPLEMENTS

module	week	Typ	name of the lesson	teacher
	7	L/S	Carbohydrates as dietary supplements. Proteins and amino acids as dietary supplements. Mechanisms of digestion and absorption, metabolism.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
		P	Carbohydrates as dietary supplements. Proteins and amino acids as dietary supplements. Mechanisms of digestion and absorption, metabolism. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	8	L/S	Fats and fatty acids as dietary supplements. Mechanisms of digestion and absorption, metabolism.	Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović
		P	Fats and fatty acids as dietary supplements. Mechanisms of digestion and absorption, metabolism. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	9	L/S	Vitamins-metabolism, sources, recommendations, physiological functions. Hypovitaminosis and hypervitaminosis. Vitamins as dietary supplements.	Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Prof dr. Nela Đonović Assoc. prof. Dalibor Stajić
		P	Vitamins as dietary supplements. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić

LESSON SCHEDULE FOR THE SUBJECT NUTRITIONAL SUPPLEMENTS

module	week	Typ	name of the lesson	teacher
1	10	L/S	Minerals-metabolism, sources, recommendations, physiological functions, deficit and excess. Minerals as dietary supplements 1.	Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić
		P	Minerals as dietary supplements 1. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	11		Minerals-metabolism, sources, recommendations, physiological functions, deficit and excess. Minerals as dietary supplements 2.	Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić
			Minerals as dietary supplements 2. Analyzes of samples.	Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić
	12	L/S	Dietary products with or from plants. Other dietary supplements. Packaging for packing dietary products.	Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović
		P	Dietary products with or from plants. Other dietary supplements. Packaging for packing dietary products. Analyzes of samples.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić

LESSON SCHEDULE FOR THE SUBJECT NUTRITIONAL SUPPLEMENTS

module	week	Typ	name of the lesson	teacher
1	13	L/S	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 1.	Prof dr. Nela Đonović Assoc. prof. Dalibor Stajić Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović
		P	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 1.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	14	L/S	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 2.	Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović
		P	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 2.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić
	15	L/S	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy 3.	Assoc. prof. Dalibor Stajić Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović
		P	Recommendations for the use of dietary products in the framework of diet prophylaxis and diet therapy. Examples of dietary products on the market.	Prof dr. Nela Đonović Assoc. prof. Marija Sekulić Asst. prof. Dušan Tomović Assoc. prof. Dalibor Stajić

LESSON SCHEDULE FOR THE SUBJECT NUTRITIONAL SUPPLEMENTS

module	week	Typ	name of the lesson	teacher
		EX	FINAL EXAM (Final test) EXAM (June term)	