## Semmelweis University Faculty of Pharmaceutical Sciences

## The new curriculum of the credit-based training from the 2020/2021 academic year

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
1. SEMESTER	1			T	
General and Inorganic Chemistry (practice) I.	-	4	4		practical mark
General and Inorganic Chemistry (theory) I.	3	-	3		semi-final
Informatics (practice)	-	2	2		practical mark
Biophysics (practice) I.	-	2.5	2		practical mark
Biophysics (theory) I.	<b>1.5</b>	-	2		semi-final
Biology (practice) I.	-	2	2		practical mark
Biology (theory) I.	2	-	2		semi-final
First Aid (practice)	-	1	1		practical mark
Pharmaceutical Terminology (practice)	-	2	2		practical mark
Mathematics for Pharmacists (practice)	-	2	2		practical mark
Mathematics for Pharmacists (theory)	2	-	2		semi-final
Introduction to Pharmaceutical Studies (methodology, law) (theory)	1	-	1		semi-final
History of Pharmaceutics and Propedeutics (theory)	2	-	2		semi-final
Principles of Professional Ethics I.	-	-	-		signature
Physical Education I.	-	1	-		signature
Hungarian Pharmaceutical Terminology (practice) I.	-	2	0		signature
Elective or obligatory elective subjects	-	-	-		semi-final or practical mark
Total:	11.5	18.5	27		
2. SEMESTER					
General and Inorganic Chemistry (theory) II.	3	_	3	General and Inorganic Chemistry I.	final*
Analytical Chemistry (theory+practice) I.	2	4	6	Gen. and Inorg. Chem. I. Introduction to Pharm. Stud. Mathematics for Pharm.	practical mark
Anatomy (practice)	-	2	-	Biology I. Pharmac. Terminology	signature
Anatomy (theory)	2	-	2	First Aid	semi-final
Biophysics (practice) II.	-	2.5	2		practical mark
Biophysics (theory) II.	1.5	_	2	Biophysics I.	final*
Biology (practice) II.	_	2	2		practical mark
Biology (theory) II.	2		2	Biology I.	final*
Communication and Information Networks (theory+practice)	1	1	2	Introduction to Pharmaceutical Studies	practical mark
Basics of Economics (theory)	1	-	1	Mathematics for Pharm. Introduction to Pharm. Stud.	semi-final
Physical Chemistry for Pharmacists (theory+practice)	2	2	4	Gen. and Inorg. Chem. I. Biophysics I. Mathematics for Pharm.	practical mark
Hungarian Pharmaceutical Terminology (practice) II.	-	2	0	Hungarian Pharmaceutical Terminology I.	signature
Physical Education II.	_	1	_		signature
Elective or obligatory elective subjects	-	-	-		semi-final or practical mark
Total:	14.5	16.5	26		

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
3. SEMESTER	Γ	Γ		T	T
Analytical Chemistry (practice) II.	-	4	4	Analytical Chemistry I.	practical mark
Analytical Chemistry (theory) II.	4	-	4	Gen. and Inorg. Chem. II.	final*
Colloid Chemistry (theory and practice)	2	2	4	Physic. Chem. for Pharm.	practical mark
conoid chemisu'y (meory and practice)	2	2	4	Biophysics II.	practical mark
Organic Chemistry (practice) I.	-	4	4	Gen. and Inorg. Chem. II.	practical mark
Organic Chemistry (theory) I.	4	-	4	-	semi-final
Physiology (practice) I.	-	2	1	Anatomy	practical mark
Physiology (theory) I.	4	-	4	Biology II.	semi-final
Biochemistry (theory+practice) I.	1.5	1.5	2	Biology II.	practical mark
				Gen. and Inorg. Chem. II.	
Basic Immunology (theory) Hungarian Pharmaceutical Terminology	2	-	2	Biology II. Hungarian Pharmaceutical	semi-final
(practice) III.	-	2	1	Terminology (practice) II.	practical mark
Physical Education III.	-	1	-		signature
Elective or obligatory elective subjects	_	_	-		semi-final or
					practical mark
Total:	17.5	16.5	30		
4. SEMESTER	Т	[		Die chemistre I	1
Biochemistry (theory) II.	3	-	3	Biochemistry I. Organic Chemistry I.	final*
Organic Chemistry (practice II.	_	4	4		practical mark
Organic Chemistry (theory) II.	4	_	4	Organic Chemistry I.	final*
		_		Physiology I.	IIIdi
Physiological Pharmaceutics and Pharmaceutical dosage forms (theory+practice)	2	2	3	Physic. Chem. for Pharm. History of Pharm. and Prop.	practical mark
Physiology (practice) II.	_	2	1	Physiology I.	practical mark
Physiology (theory) II.	6	_	6	Biochemistry I.	final*
Biotechnology (theory)	1	_	1	Biochemistry I.	semi-final
				•	
Nanotechnology (theory+practice)	2	2	4	Colloid Chemistry Analytical Chemistry II.	practical mark
Pharmacy Practice	-	20/semester	-	Pharmaceutical	signature
Hungarian Pharmaceutical Terminology				Terminology Hungarian Pharmaceutical	
(practice) IV.	-	2	<mark>3</mark>	Terminology (practice) III.	final
Physical Education IV.	-	1	-		signature
Summer Practice I.		40	4	Organic Chemistry II.	practical mark
		-		Analytical Chemistry II.	semi-final or
Elective or obligatory elective subjects	-	_	-	-	practical mark
Total:	18	13 20/semester	26 <mark>+3</mark> +4		
5. SEMESTER		40/week			
<b>5. SEMIESTER</b> Pharmaceutical Botany (practice)		2	1	Biology II.	practical mark
Pharmaceutical Botany (theory)	2	-	2	Biotechnology	semi-final
Nutrition and Dietetics (theory)	1	-	1	Physiology II; Biochemistry II.	semi-final
Pharmaceutical Technology I.	2	3	4	Physiological Pharmaceutics	practical mark
(theory+practice)	2	5	4	and Pharmaceutical dosage forms, Pharmaceutical, Terminology Nanotechnology	practical mark
Pharmaceutical Chemistry and Analysis (practice) I.	-	4	3	Analytical Chemistry II.	practical mark
Pharmaceutical Chemistry and Analysis	4	_	4	Organic Chemistry II.	semi-final
(theory) I. Decrementical Microbiology (practice)					
Pharmaceutical Microbiology (practice) Pharmaceutical Microbiology (theory)	- 3	2	- 4	Basic Immunology	signature semi-final
Basic Medical Pathophysiology I.				Physiology II.	
(theory+practice)	2	1	2	Biochemistry II.	practical mark

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
Clinical-Chemistry and Laboratory Diagnostics (theory)	2	-	2	Physiology II. Biochemistry II.	semi-final
Statistics for Pharmacists (theory+practice)	2	2	4	Mathematics for Pharm.; Physiological Pharmaceutics and Pharmaceutical dosage forms	practical mark
Physical Education V.	-	1	-		signature
Elective or obligatory elective subjects	_	-	-	_	semi-final or practical mark
Total:	18	15	27		
6. SEMESTER	Т	Τ			
Basic Medical Pathophysiology II. (theory+practice)	2	1	3	Basic Med. Pathophys. I. Pharmac. Microbiology Nutrition and Dietetics	final*
Pharmacognosy (theory+practice) I.	2	4	5	Pharmaceutical Botany	practical mark
Pharmaceutical Chemistry and Analysis (practice) II.	-	4	4	<ul> <li>Pharmaceutical Chemistry</li> </ul>	practical mark
Pharmaceutical Chemistry and Analysis (theory) II.	4	-	4	and Analysis I.	final*
Pharmaceutical Technology (practice) II.	-	6	3	Pharmaceutical Techn. I. Pharmac.Chem. and Anal. I.	practical mark
Pharmaceutical Technology (theory) II.	2	-	3	Statistics for Pharmacists	semi-final
Veterinary Pharmaceuticals (theory)	1	-	1	Pharmaceutical Techn. I. Pharmac. Microbiology	semi-final
Pharmacology and Toxicology (practice) I.	_	2	2	Basic Med. Pathophys. I. Physiological Pharmaceutics	practical mark
Pharmacology and Toxicology (theory) I.	2	-	2	and Pharmaceutical dosage forms	semi-final
Pharmacy Practice II.	_	20/semester	-	Pharmaceutical Techn. I. Pharmac.Chem. and Anal. I.	signature
Physical Education VI.	-	1	-		signature
Summer Practice II.		40	4	Pharmaceutical Chem and Analysis; Pharm. Techn. II.	practical mark
Elective or obligatory elective subjects	_	_	-	-	semi-final or practical mark
Total:	13	18 20/semester 40/week	27+4		
7. SEMESTER					
Pharmacognosy (practice) II.	-	4	2	Pharmacognosy I.	practical mark
Pharmacognosy (theory) II.	2	-	3	Filamacognosy I.	final*
Instrumental Pharmaceutical Analysis (practice)	-	5	4	Pharmac.Chem. and Anal. II Pharmac. Techn. II.	practical mark
Instrumental Pharmaceutical Analysis (theory)	2	-	2		semi-final
Pharmacology and Toxicology (practice) II.	-	2	2	Pharmac. and Toxi. I.	practical mark
Pharmacology and Toxicology (theory) II.	3	-	3	Basic Med. Pathophy. II.	semi-final
Pharmaceutical Technology (practice) III.	-	8	5	Pharmac. Techn. II.	practical mark
Pharmaceutical Technology (theory) III.	2	-	2		semi-final
Industrial Pharmaceutical Technology I.	3	0	2	Pharm. Technology II. Pharm. Chem. and Anal. I.	semi-final
Biological Drugs (theory)	2	-	2	Pharmac.Chem. and Anal. II Pharmac. and Tox. I. Biotechnology	semi-final
Pharmacoeconomics (practice)	-	1	1	Pharmac. and Tox. I. Basics of Economics Statistics for Pharmacists	practical mark
Physical Education VII.	-	1	-		signature
Elective or obligatory elective subjects	_	_	-	-	semi-final or practical mark
Total:	14	21	26 <mark>+2</mark>		1

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
8. SEMESTER	(IIOUI/WCCK)	(nour/week)			
Pharmacology and Toxicology (practice) III.	-	2	2	Pharmacology and	practical mark
Pharmacology and Toxicology (theory) III.	3	_	4	Toxicology II.	final*
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Pharmaceutical Technology (practice) IV.	-	8	4	Pharmaceutical	practical mark
Pharmaceutical Technology (theory) IV.	2	-	5	Technology III.	final*
Pharmacy Administration (theory+practice) I.	2	2	4	Pharmac. and Tox. II. Pharmacoeconomics	practical mark
Public Health (practice)	-	2	2	Basic Med. Pathophy. II.	practical mark
Public Health (theory)	2	-	2	Nutrition and Dietetics	semi-final
Phytotherapy (theory)	2	-	2	Pharmacognosy II.	semi-final
Pharmaceutical management (practice)	-	1	1	Pharmacoeconomics	practical mark
Pharmaceutical management (theory)	1	-	1		semi-final
Industrial Pharmaceutical Technology II.	3	0	2	Pharm. Technology III. Industrial Pharm. Tech. II.	semi-final
Diploma Work I.	_	2			signature
Physical Education VIII.	_	1	_		signature
Elective or obligatory elective subjects	_		-	_	semi-final or
Total:	15	18	27 <mark>+2</mark>		practical mark
9. SEMESTER					-
Compulsory Practice Before the Board Exam I.	-	40	8	Passing all finals of the 8th semester	practical mark
Drug Therapy (theory+practice)	2	3	5	Pharmac. and Tox. III. Pharmac. Techn. IV. Phytotherapy	semi-final
Pharmaceutical Care (theory+practice)	2	3	4	Pharmac. and Tox. III. Pharmac. Techn. IV.	semi-final
Clinical Pharmacokinetics and Biopharmacy (theory+practice)	2	3	4	Pharmac. and Tox. III. Pharmac. Techn. IV.	semi-final
Pharmaceutical Communication and Integrated Consulting (theory+practice)	1	2	2	Pharmac. and Tox. III. Pharmacy Administration I.	practical mark
Pharmacy Administration (theory) II.	2	-	2	Pharmacy Administration I. Public Health Pharmac. Techn. IV.	final*
Pharmaceutical Informatics (theory+practice)	1	1	1	Pharmac. Techn. IV. Pharmacy Administration I.	practical mark
Clinical Pharmacy (theory+practice)	1	1	1	Pharmac. and Tox. III. Pharmac. Techn. IV.	semi-final
Pharmaceutical Ethics and Sociology (theory+practice)	1	1	1	Pharmac. and Tox. III. History of Pharm. and Prop.	semi-final
Diploma Work II.	_	5	_	Diploma Work I.	signature
Physical Education IX.	_	1	_	I CONTRACTOR	signature
Elective or obligatory elective subjects	_	_	_	_	semi-final or
Subject	Lecture	Practice	Credit	Prerequisites	practical mark Exam type
Pharmaceutical industrial and regulatory	(hour/sem.)	(hour/sem.)	4	·	
affairs knowledge (teaching block)	28	28	4	Pharmacy Administration I.	practical mark
Drug Licensing (theory+practice)	12	12	1	Pharmacy Administration I. Pharmac. Techn. IV.	practical mark
Pharmacovigilance and pharmacoepidemiology (theory+practice)	4	4	1	Pharmac. and Tox. III.	practical mark
Quality Assurance (theory+practice)	4	4	1	Pharmac. Techn. IV. Pharmacy Administration I.	practical mark
Drug innovation and clinical studies (theory+practice)	8	8	1	Pharmac. and Tox. III. Pharmac. Techn. IV.	practical mark
Total:	12 /week 28/sem.	20/week 40/week 28/sem.	24+ <mark>8</mark>	Thatmac. Feelint, IV.	

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
10. SEMESTER					
Compulsory Practice Before the Board Exam II.	-	40	<mark>16</mark>	Compulsory Practice Before the Board Exam I.	practical mark
Diploma work/Thesis defense	1/sem.	-	<mark>10</mark>	Diploma Work II.	final*
Principles of Professional Ethics II.	-	-	-		signature
Total:	1/sem.	40/week	<mark>26</mark>		
*Counts to the qualification of the diploma					

## Obligatory elective subjects in the recommended curriculum

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
Hungarian Pharmaceutical Terminology (practice) IV.	-	2	<mark>3</mark>	Hungarian Pharmaceutical Terminology (practice) III.	final*
Industrial Pharmaceutical Technology I.	3	0	2	Pharm. Technology II. Pharm. Chem. and Analysis I.	semi-final
Industrial Pharmaceutical Technology II.	3	0	2	Industrial Pharm. Tech. I. Pharm. Technology II.	semi-final
Compulsory Practice Before the Board Exam I.	-	40	8	Passing all finals of the 8th semester	practical mark
Compulsory Practice Before the Board Exam II.	_	40	<mark>16</mark>	Compulsory Practice Before the Board Exam I.	practical mark
Diploma work/Thesis defense Total:	1/sem.	_	<mark>10</mark> 41	Diploma Work II.	practical mark

## Elective subjects in the recommended curriculum

Subject	Lecture (hour/week)	Practice (hour/week)	Credit	Prerequisites	Exam type
Summer Practice I.		40	4	Organic Chemistry II. Analytical Chemistry II.	practical mark
Summer Practice II.		40	4	Pharmaceutical Chemistry and Analysis Pharm. Techn. II.	practical mark
Total:			8		