

COURSE STRUCTURE

2025-11161 Physical chemistry (EN) Master

1						2					
№	Course code	Title	Th	Pr	Ects	№	Course code	Title	Th	Pr	Ects
1	PCHE 503	Physical chemical analysis	1	0+2	6	1	PCHE 504	Physical chemistry- 1	2	1+0	6
2	PCHE 501	Solution thermodynamics	1	0+2	6	2	PSY 505	Psychology	2	0+0	2
3	CHE 523	Advanced Electrochemistry	2	0+0	4	3	PCHE 502	Current trends in chemistry	1	1+0	4
4	CHE 521	Advanced thermodynamics-1	2	0+0	4	4	PCHE 506	Thermochemistry and calorimetry	1	1+0	4
5	ENG 501	Academic English	0	3+0	6	5	CHE 522	Advanced thermodynamics-2	2	0+0	4
6	XXX XXX	[AE] Area Elective Course I #1	1	1+0	4	6	PDG 520	Higher Education Pedagogy	2	0+0	4
						7	XXX XXX	[AE] Area Elective Course II #2	1	1+0	4
						8	XXX XXX	[NAE] Non-Area Elective Course I #1	2	0+0	2
<i>Subtotal: 30</i>						<i>Subtotal: 30</i>					

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No	Course code	Title	Th	Pr	Ects
1	PCHE 605	Statistical thermodynamics, theory and simulation methods	2	1+0	6
2	PCHE 601	Physical chemistry- 2	2	1+0	6
3	PCHE 609	Chemical kinetics and catalysis	1	1+0	4
4	PCHE 603	Advanced catalysis and catalytic processes	1	1+0	4
5	XXX XXX	[AE] Area elective course IV #4	2	1+0	6
6	XXX XXX	[AE] Area elective course III #3	1	1+0	4

Subtotal: 30

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No	Course code	Title	Th	Pr	Ects
1	PCHE 670	Scientific pedagogical practice	0	0+0	6
2	PCHE 680	Research study	0	0+0	6
3	PCHE 690	Preparation and defense of the thesis	0	0+0	18

Subtotal: 30

Total ECTS credits: **120**

AE - Area Elective Courses

No	Course code	Title	Th	Pr	Ects
1	PCHE 507	History and methodology of chemistry	1	1+0	4
2	PCHE 505	Modern physical investigation methods	1	1+0	4
3	PCHE 508	Photochemistry	1	1+0	4
4	PCHE 510	Selected topics of physical chemistry	1	1+0	4
5	PCHE 611	Physicochemical properties of nanoparticles	1	1+0	4
6	PCHE 613	Chromatography	1	1+0	4
7	PCHE 615	Methods for thermodynamic characterization of materials	2	1+0	6

8	PCHE 607	Surface chemistry	2	1+0	6	

NAE - Non-Area Elective Courses

No	Course code	Title	Th	Pr	Ects	
1	SOC 501	Sociology	1	1+0	2	
2	PHIL 501	Philosophy	1	1+0	2	