

## CURRICULA

Domain Chemical Engineering  
First Year - Sem I

Master

Biorefineries and Bioproducts

No.	Discipline name	Code	CP	Hours/week					Eval.
				Semester I					
				C	S	L	P	Res	
<b>Compulsory disciplines (O)</b>									
1	Biochemistry. Special chapters	UPB.11S.09.O.0101	4	2		1	0		E
2	Phytopharmaceutics	UPB.11S.09.O.0102	4	2					E
3	Unit operations	UPB.11S.09.O.0103	4	2	2				E
4	Bioproducts with tensioactive properties	UPB.11S.09.O.0104	4	1		1			E
5	Biofuels, technologies	UPB.11S.09.O.0105	4	2		2	1		E
6	Scientific research and practice I	UPB.11S.09.O.0106	10					12	V
<b>Optional courses</b>									
1									E
2									V
<b>Statistics</b>									
	PC, hours/week/act. (C,S,L,P,PL,individual study)		30	9	2	4	1	12	E / V
	hours/week/semester			28					2
<b>Facultative disciplines</b>									
1	Design and management of educational programs		5	1	1				E
2									

First Year - Sem II

No.	Discipline name	Code	CP	Hours/week					Eval.
				Semester I					
				C	S	L	P	Res	
<b>Compulsory disciplines (O)</b>									
1	Biorefineries - technologies	UPB.11S.10.O.0101	4	2		0	1		E
2	Phytopharmaceutic technologies	UPB.11S.10.O.0102	4	2		2	1		E
3	Process intensification techniques	UPB.11S.10.O.0103	4	1					E
4	Natural dyes	UPB.11S.10.O.0104	4	1		1	1		E
5	Scientific research and practice II	UPB.11S.10.O.0105	10					12	V
<b>Optional courses</b>									
1	Clean energy sources / Electrochemical energy production systems / Alternative energy sources	UPB.11S.10.O.0106	2	1		1			V
2	Experimental strategies / Automatic management of bioprocesses	UPB.11S.10.O.0107	2	1		1			V
<b>Statistics</b>									
	PC, hours/week/act. (C,S,L,P,PL,individual study)		30	8	0	5	3	12	E / V
	hours/week/semester			28					3
<b>Facultative disciplines</b>									
1	Psihopedagogia adolescenților, tinerilor și adulților		5	1	1				E
2	Consiliere și orientare		5	0.5	2				E

Second Year - Sem I

No.	Discipline name	Code	CP	Hours/week					Eval.
				Semester I					
				C	S	L	P	Res	
<b>Compulsory disciplines (O)</b>									
1	Bioreactors	UPB.11S.11.O.0101	5	2	2				E
2	Biorefineries – process integration	UPB.11S.11.O.0102	4	2			1		E
3	Integrated pollution prevention and control in obtaining chemical bioproducts	UPB.11S.11.O.0103	4	2	1				E
4	Development and management of projects in the field of bioproducts and biorefineries	UPB.11S.11.O.0104	5	2	1		1		E
5	Scientific research and practice III	UPB.11S.11.O.0105	10					12	V
<b>Optional courses</b>									
1	Organic biomass intermediates / Biopolymers	UPB.11S.11.O.0106	2	1		1			E
2									V
<b>Statistics</b>									
	PC, hours/week/act. (C,S,L,P,PL,individual study)		30	9	4	1	2	12	E / V
	hours/week/semester			28					2
<b>Facultative disciplines</b>									
1	Psychopedagogy of adolescents, young people and adults		5	1	1				E
2	Counseling and guidance / Multimedia in education		5	0.5	2				E

Second Year - Sem II

No.	Discipline name	Code	CP	Hours/week					Eval.
				Semester I					
				C	S	L	P	Res	
<b>Compulsory disciplines (O)</b>									
1	Scientific research and practice IV, prepare disertation	UPB.11S.12.O.0101	28					27	V
2	Ethics and academic integrity	UPB.11S.12.O.0102	2	1					V
<b>Optional courses</b>									
1									
2									
<b>Statistics</b>									
	PC, hours/week/act. (C,S,L,P,PL,individual study)		30	1	0	0	0	27	E / V
	hours/week/semester			28					1
<b>Facultative disciplines</b>									
1									
2									