

Table 8. Curriculum of the Master's DP 7M05210 Ecology

1 semester	2 semester	3 semester	4 semester
M1 History and philosophy of science 2 lectures 1 practical class <b>4 ECTS</b> Exam	M9 Pedagogical practice <b>4 ECTS</b>  Differentiated pass	M15 Research practice <b>6 ECTS</b>  <b>Differentiated pass</b>	M22 Research work of a master's student 4 <b>17 ECTS</b>  <b>Differentiated pass</b>
M2 Foreign language (professional) 3 practical classes <b>4 ECTS</b>  Differentiated pass	M10.1 Actual Problems of Geoecology and Landscape Ecology <b>2 lectures</b> <b>2 practical classes</b> <b>5 ECTS</b> Exam  or M10.2 Rational use of natural resources <b>2 lectures</b> <b>2 practical classes</b> <b>5 ECTS</b> Exam	M16.1 International cooperation in the field of environmental protection <b>2 lectures</b> <b>1 practical class</b> <b>5 ECTS</b> Exam  or M16.2 Modern methods of Distance Reconnaissance in environmental research <b>2 lectures</b> <b>1 practical class</b> <b>5 ECTS</b> Exam	M23 Preparation and defense of a master's thesis (MRW 4) <b>8 ECTS</b>
M3 Psychology of management 2 lectures 1 practical class <b>4 ECTS</b> Exam	M11.1 Environmental impact assessment <b>2 lectures</b> <b>3 practical classes</b> <b>6 ECTS</b> Exam  or M11.2 Environmental assessment and mapping of Localities in South Region <b>2 lectures</b> <b>3 practical classes</b> <b>6 ECTS</b> Exam	M17.1 Examination and Monitoring of Ecological Nature Management Safety <b>2 lectures</b> <b>2 laboratory classes</b> <b>1 practical class</b> <b>6ECTS</b> Exam  or M17.2 Ecosystem studies of biological resources <b>2 lectures</b> <b>2 laboratory classes</b> <b>1 practical class</b> <b>6ECTS</b> Exam	
M4 Pedagogy and psychology of higher education 2 lectures 1 practical class <b>4 ECTS</b> Exam	M12.1 Study of Latest Achievements in Field of Waste Processing <b>2 lectures</b> <b>2 laboratory classes</b> <b>1 practical class</b> <b>6ECTS</b> Exam  or M12.2 Modern Methods and Measuring Instruments in Ecology	M18.1 Assessment and Management of Environmental risk <b>2 lectures</b> <b>2 practical classes</b> <b>5 ECTS</b> Exam  or M18.2 Biological diversity of ecosystems and urban systems of the Republic of Kazakhstan	

	<p>2 lectures 2 laboratory classes 1 practical class <b>6ECTS</b> Exam</p>	<p>2 lectures 2 practical classes <b>5 ECTS</b> Exam</p>	
<p>M5 Teaching Methods of Special Disciplines 2 lectures 2 practical classes <b>5 ECTS</b> Exam</p>	<p>M13.1 Green technologies in production and transport 2 lectures 3 practical classes <b>6ECTS</b> Exam</p> <p>or</p> <p>M13.2 Ecological control and monitoring of natural technogenic ecosystems 2 lectures 3 practical classes <b>6ECTS</b> Exam</p>	<p>M19.1 Ecological standardization, certification and licensing 2 lectures 2 practical classes <b>5ECTS</b> Exam</p> <p>or</p> <p>M19.2 Methodology of scientific, creative and inventive activity 2 lectures 2 practical classes <b>5ECTS</b> Exam</p>	
<p>M6.1 Environmental monitoring of harmful chemical compounds - superecotoxicants 2 lectures 1 practical class <b>4ECTS</b> Exam</p> <p>or</p> <p>M6.2 Digitalization in ecology and nature management 2 lectures 1 practical class <b>4ECTS</b> Exam</p>	<p>M14 Research work of a master's student 2 (MRW 2) 3 ECTS</p> <p><b>Differentiated pass</b></p>	<p>M20.1 Ecological Safety Tehnology in Industry 2 lectures 2 laboratory classes 1 practical class <b>6ECTS</b> Exam</p> <p>or</p> <p>M20.2 Water management 2 lectures 2 laboratory classes 1 practical class <b>6ECTS</b> Exam</p>	
<p>M7.1 Organization of environmental audit 2 lectures 1 practical class <b>4 ECTS</b> Exam</p> <p>or</p> <p>M7.2 Environmental management 2 lectures 1 practical class <b>4 ECTS</b> Exam</p>		<p>M21 Research work of a master's student 3 (MRW 3) 3 ECTS</p> <p><b>Differentiated pass</b></p>	

M8 Research work of a master's student 1 (MRW 1) 1 ECTS  <b>Differentiated pass</b>			
$\Sigma$ 12 lectures + 10 practical classes = 22 hours/week	$\Sigma$ 8 lectures + 9 practical classes + 2 laboratory classes = 19 hours/week	$\Sigma$ 10 lectures +7 practical classes +4 laboratory classes = 21 hours/week	
<b>30 ECTS</b>	<b>30 ECTS</b>	<b>35 ECTS</b>	<b>25 ECTS</b>
<b>Total</b>			<b>120 ECTS</b>
<b>6 exams 2 - differentiated pass</b>	<b>4 exams 2 - differentiated pass</b>	<b>5 exams 2 - differentiated pass</b>	<b>1 differentiated pass + defense</b>
Electives modules 17 ECTS (50%)	Electives modules 23 ECTS (76,6%)	Electives modules 26 ECTS (74,2%)	
Total			66 ECTS (55%)
laboratory classes - hours/week	laboratory classes 2 hours/week	laboratory classes 4 hours/week	
Total			6 hours/week (9.6%)