

# Environmental and Plant Biotechnology

Program 2016

No.	Courses	Hours				Hours per semester						ECTS per semester			Total ECTS
		total	lectures (L)	practicals (P)	seminars	1		2		3		1	2	3	
						L	P	L	P	L	P				
<b>A. General education courses</b>		<b>129</b>	<b>60</b>	<b>69</b>	<b>0</b>	<b>15</b>	<b>54</b>	<b>0</b>	<b>0</b>	<b>45</b>	<b>15</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>9</b>
1	Polish language (or other humanistic course)	15	15	0		15	0					1			1
2	Foreign language	30	0	30		0	30					2			2
3	Physical education	24	0	24		0	24					1			1
4	Environmental protection policy and intellectual property	45	30	15						30	15			4	4
5	Ethics in biotechnology	15	15	0						15	0			1	1
<b>B. Core courses</b>		<b>195</b>	<b>95</b>	<b>100</b>	<b>0</b>	<b>65</b>	<b>70</b>	<b>30</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>4</b>	<b>0</b>	<b>17</b>
6	Molecular biology	45	20	25		20	25					4			4
7	Plant and microbial proteomics	30	15	15		15	15					3			3
8	Physiology of stress in plants	30	15	15		15	15					3			3
9	Biostatistics	30	15	15		15	15					3			3
10	Genetic engineering	60	30	30				30	30				4		4
<b>C. Specialization courses</b>		<b>360</b>	<b>161</b>	<b>199</b>	<b>0</b>	<b>44</b>	<b>61</b>	<b>82</b>	<b>98</b>	<b>35</b>	<b>40</b>	<b>12</b>	<b>13</b>	<b>6</b>	<b>31</b>
11	Ecotoxicology	30	20	10		20	10					4			4
12	Instrumental analysis	45	0	45		0	45					4			4
13	Soil chemistry and microbiology	30	24	6		24	6					4			4
14	Bioremediation and soil reclamation	60	30	30				30	30				4		4
15	Crop improvement	60	30	30				30	30				4		4
16	Introduction to geomatics	30	10	20				10	20				3		3
17	Restoration ecology of post-industrial sites	30	12	18				12	18				2		2
18	Biotechnology of water, sewage and activated sludge	45	20	25						20	25			4	4
19	Waste management	30	15	15						15	15			2	2
<b>Total (A+B+C)</b>		<b>684</b>	<b>316</b>	<b>368</b>	<b>0</b>	<b>124</b>	<b>185</b>	<b>112</b>	<b>128</b>	<b>80</b>	<b>55</b>	<b>29</b>	<b>17</b>	<b>11</b>	<b>57</b>
<b>D. MSc project</b>													6		6
<b>E. MSc seminar and MSc thesis</b>		60	0	0	60		20		20		20	1	1	13	15
<b>F. Facultative courses (4 x 30 h)</b>		120	60	60				30	30	30	30		6	6	12
<b>Total</b>		<b>864</b>	<b>376</b>	<b>428</b>	<b>60</b>	<b>124</b>	<b>205</b>	<b>142</b>	<b>178</b>	<b>110</b>	<b>105</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>90</b>

semester	1	2	3
hours	329	320	215
courses	10	7	6