

## Crop Plant Biology and Production

Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
<b>Semester 1</b>										
1. Foreign Language Polish/German	2	50	0	24		2	24	GA	GB	Foreign Language Department <i>Studium Języków Obcych</i>
2. Information Technology	4	100	10	20		10	60	GA	GB	Department of Mathematical and Statistical Methods <i>Katedra Metod Matematycznych i Statystycznych</i>
3. Physics	4	100	15	25		10	50	EX	GH	Department of Physics and Biophysics <i>Katedra Fizyki i Biofizyki</i>
4. Economics	3	75	30	0		3	42	GA	GA	Department of Economics <i>Katedra Ekonomii</i>
5. Mathematics	4	100	15	20		10	55	EX	GB	Department of Mathematical and Statistical Methods <i>Katedra Metod Matematycznych i Statystycznych</i>
6. Inorganic Chemistry	4	100	15	30		10	45	EX	GH	Department of Chemistry <i>Katedra Chemii</i>

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		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
7. The Biology of Crops	4	100	30	20		10	40	EX	GH	Department of Agronomy/Department of Vegetable Crops/Department of Ornamental Plants, Dendrology and Pomology <i>Katedra Agronomii/Katedra Warzywnictwa/ Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa</i>
8. Social Knowledge	3	75	40	0		4	31	GA	GA	Department of Gastronomy Sciences and Functional Foods Department of Forest Engineering Department of Law And Organization Of Enterprises In Agrobusiness <i>Katedra Technologii Gastronomicznej i Żywności Funkcjonalnej, Katedra Inżynierii Leśnej, Katedra Prawa i Organizacji Przedsiębiorstw w Agrobiznesie</i>
Total number of hours –semester 1	<b>28</b>	<b>700</b>	<b>155</b>	<b>139</b>		<b>59</b>	<b>347</b>			
<b>Semester 2</b>										
1. Foreign Language Polish/German	2	50	0	26		2	22	GA	GB	Foreign Language Department <i>Studium Języków Obcych</i>
2. Microbiology	4	100	20	20		10	50	EX	GH	Department of Soil Science and Microbiology <i>Katedra Gleboznawstwa i Mikrobiologii</i>

Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
3. Botany	5	125	15	30	10	10	60	EX	GH	Department of Botany <i>Katedra Botaniki</i>
4. Organic Chemistry	5	125	15	30		10	70	EX	GH	Department of Chemistry <i>Katedra Chemii</i>
5. Principles of Crop Production	5	125	30	30		10	55	EX	GH	Department of Agronomy/Department of Vegetable Crops/Department of Ornamental Plants, Dendrology and Pomology <i>Katedra Agronomii/Katedra Warzywnictwa/ Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa</i>
6. Biochemistry	4	100	20	20		10	50	EX	GH	Department of Biochemistry and Biotechnology <i>Katedra Biochemii i Biotechnologii</i>
7. Soil Science	5	125	15	30	8	10	62	EX	GH	Department of Soil Science and Microbiology <i>Katedra Gleboznawstwa i Mikrobiologii</i>

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		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
8. Subjects selected by students I	2	50	30	0		2	18	GA	GA	Department of Law and Enterprise Management in Agribusiness Department of Economics and Economic Policy in Agribusiness <i>Katedra Prawa i Organizacji Przedsiębiorstw w Agrobiznesie</i> <i>Katedra Ekonomii i Polityki Gospodarczej w Agrobiznesie</i>
Total number of hours –semester 2	<b>32</b>	<b>800</b>	<b>145</b>	<b>186</b>	<b>18</b>	<b>64</b>	<b>387</b>			
<b>Semester 3</b>										
1. Physical Education	0	30	0	30		0	0	GA	GK	Physical Education Centre <i>Centrum Kultury Fizycznej</i>
2. Foreign Language Polish/German	2	50	0	26		2	22	GA	GB	Foreign Language Department <i>Studium Języków Obcych</i>
3. Statistics	5	125	15	20		10	80	EX	GB	Department of Mathematical and Statistical Methods <i>Katedra Metod Matematycznych i Statystycznych</i>
4. Genetics	4	100	20	20		10	50	EX	GH	Department of Genetics and Plant Breeding <i>Katedra Genetyki i Hodowli Roślin</i>

Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
5. Plant Physiology	4	100	15	25		10	50	EX	GH	Department of Plant Physiology <i>Katedra Fizjologii Roślin</i>
6. Phytopathology	6	150	20	45		10	75	EX	GH	Department of Phytopathology, Seed Science and Technology <i>Katedra Fitopatologii i Nasiennictwa</i>
7. Molecular Biology	4	100	15	20		10	55	EX	GH	Department of Biochemistry and Biotechnology <i>Katedra Biochemii i Biotechnologii</i>
8. Agricultural and Horticultural Engineering	5	125	30	30		10	55	EX	GH	Department of Agronomy/Department of Vegetable Crops/ Department of Biosystems Engineering <i>Katedra Agronomii/Katedra Warzywnictwa/ Katedra Inżynierii Biosystemów</i>
<b>Total number of hours –semester 3</b>	<b>30</b>	<b>780</b>	<b>115</b>	<b>216</b>		<b>62</b>	<b>387</b>			
<b>Semester 4</b>										
1. Physical Education	0	30	0	30		0	0	GA	GK	Physical Education Centre <i>Centrum Kultury Fizycznej</i>
2. Foreign Language Polish/German	2	60	0	24		3	33	GA	GB	Foreign Language Department <i>Studium Języków Obcych</i>

Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
3. Plant Breeding	4	100	20	25		10	45	EX	GH	Department of Genetics and Plant Breeding <i>Katedra Genetyki i Hodowli Roślin</i>
4. Mineral and Organic Fertilizers in Plant Production	4	100	30	30		5	35	EX	GH	Department of Agricultural Chemistry and Environmental Biogeochemistry <i>Katedra Chemii Rolnej i Biogeochemii Środowiska</i>
5. Plant Nutrition, Soils and Horticultural Growing Media	2	50	10	20		5	15	GA	GH	Department of Plant Physiology <i>Katedra Fizjologii Roślin</i>
6. Applied Entomology	4	100	20	30		10	40	EX	GH	Department of Entomology and Environmental Protection <i>Katedra Entomologii i Ochrony Środowiska</i>
7. Grassland Science	2	50	20	15		5	10	GA	GH	Department of Grassland and Natural Landscape Sciences <i>Katedra Łąkarstwa i Krajobrazu Przyrodniczego</i>

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		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
8. Elective module I	12	300	75/80 <sup>4</sup> 60/95 <sup>4</sup> 65/90 <sup>4</sup> 155			25	120	GA	GH	Department of Vegetable Crops/ Department of Genetics and Plant Breeding/ Department of Biochemistry and Biotechnology/ Department of Entomology and Environmental Protection/ Department of Mathematical and Statistical Methods/ Department of Agricultural Chemistry and Environmental Biogeochemistry/ Department of Phytopathology, Seed Science and Technology/ Department of Soil Science and Microbiology/ Department of Agronomy <i>Katedra Warzywnictwa/ Katedra Genetyki i Hodowli Roślin/Katedra Biochemii i Biotechnologii/ Katedra Entomologii i Ochrony Środowiska/ Katedra Metod Matematycznych i Statystycznych/ Katedra Chemii Rolnej i Biogeochemii Środowiska/ Katedra Fitopatologii i Nasiennictwa/ Katedra Gleboznawstwa i Mikrobiologii/ Katedra Agronomii</i>
Total number of hours –semester 4	<b>30</b>	<b>790</b>	<b>165</b>	<b>264</b>		<b>63</b>	<b>298</b>			
<b>Semester 5</b>										

Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
1. Methods of Plant Protection	3	75	15	20		5	35	GA	GH	Department of Entomology and Environmental Protection <i>Katedra Entomologii i Ochrony Środowiska</i>
2. Seed Science and Technology	5	125	30	30		10	55	EX	GH	Department of Agronomy/Department of Phytopathology, Seed Science and Technology <i>Katedra Agronomii/ Katedra Fitopatologii i Nasiennictwa</i>



Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
3. Elective module II	12	300	85/85 <sup>4</sup> 90/80 <sup>4</sup> 170			25	105	GA	GH	Department of Ornamental Plants, Dendrology and Pomology/Department of Vegetable Crops/ Department of Genetics and Plant Breeding/ Department of Entomology and Environmental Protection/ Department of Agricultural Chemistry and Environmental Biogeochemistry/ Department of Phytopathology, Seed Science and Technology/ Department of Soil Science and Microbiology/ Department of Agronomy <i>Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/Katedra Warzywnictwa/ Katedra Genetyki i Hodowli Roślin/ Katedra Entomologii i Ochrony Środowiska/ Katedra Chemii Rolnej i Biogeochemii Środowiska/ Katedra Fitopatologii i Nasiennictwa/ Katedra Gleboznawstwa i Mikrobiologii/ Katedra Agronomii</i>
4. Agrometeorology	3	75	15	20		5	35	GA	GH	Department of Construction and Geoengineering, Laboratory of Meteorology <i>Katedra Budownictwa i Geoinżynierii, Pracownia Meteorologii</i>
5. Internship (4 weeks)	6	150				5	145	P	GP	PULS Units/ <i>Jednostki Uniwersytetu</i>

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		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
Total number of hours –semester 5	<b>29</b>	<b>725</b>	<b>145</b>	<b>155</b>		<b>50</b>	<b>375</b>			
<b>Semester 6</b>										
1. Environmental Protection in Agricultural Areas	3	75	15	20		10	30	GA	GH	Department of Entomology and Environmental Protection/ Department of Land Improvement, Environmental Development and Spatial Management <i>Katedra Entomologii i Ochrony Środowiska/Katedra Melioracji Kształtowania Środowiska i Gospodarki Przestrzennej</i>
2. Ecology	3	75	15	15	5	5	35	EX	GH	Department of Entomology and Environmental Protection/ Department of Ecology and Environmental Protection <i>Katedra Entomologii i Ochrony Środowiska/ Katedra Ekologii i Ochrony Środowiska</i>

Course	Number of ECTS credits	Number of hours					Asses-ment <sup>3</sup>	Group type	Department	
		Total (4+5+6+7+8)	Teaching hours			Contact hours				ESW <sup>2</sup>
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
3. Elective module III	15	375	110/90 <sup>4</sup> 100/100 <sup>4</sup> 200			30	145	GA	GH	Department of Ornamental Plants, Dendrology and Pomology/Vegetable Crops/ Genetics and Plant Breeding/ Entomology and Environmental Protection/ Agricultural Chemistry and Environmental Biogeochemistry/ Botany/ Phytopathology, Seed Science and Technology/ Agronomy/ Biochemistry and Biotechnology <i>Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/Katedra Warzywnictwa/ Katedra Genetyki i Hodowli Roślin/ Katedra Entomologii i Ochrony Środowiska/ Katedra Chemii Rolnej i Biogeochemii Środowiska/Katedra Botaniki/ Katedra Fitopatologii i Nasiennictwa/ Katedra Agronomii/Katedra Biochemii i Biotechnologii</i>
4. Preparation for the diploma exam (BSc seminar II)	10	250				0	250	EX		
Total number of hours –semester 6	<b>31</b>	<b>775</b>	<b>130</b>	<b>135</b>	<b>5</b>	<b>45</b>	<b>460</b>			
Total for studies (six semesters)	<b>180</b>	<b>4570</b>	<b>855</b>	<b>1095</b>	<b>23</b>	<b>343</b>	<b>2254</b>			

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		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11

<sup>1</sup> Any activities other than conversatory, laboratory or design classes (e.g. site visits, case study visits, excursions and others)

<sup>2</sup> ESW - estimated number of student work hours

<sup>3</sup> EX – examination; GA – graded assignment; P - passed (without grade)

<sup>4</sup> depending on the module selected

### Elective subjects/modules

Course	Number of ECTS credits	Number of hours						Asses-ment <sup>3</sup>	Group type	Department
		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
<b>Elective subjects I (semester 2)</b>										
1. Basics of Management	2	50	30			2	18	GA	GA	Department of Law and Enterprise Management in Agribusiness <i>Katedra Prawa i Organizacji Przedsiębiorstw w Agrobiznesie</i>
2. Food Security	2	50	30			2	18	GA	GA	Department of Economics and Economic Policy in Agribusiness <i>Katedra Ekonomii i Polityki Gospodarczej w Agrobiznesie</i>

Course	Number of ECTS credits	Number of hours						Asses-ment <sup>3</sup>	Group type	Department
		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
3. Global Food Economics	2	50	30			2	18	GA	GA	Department of Economics and Economic Policy in Agribusiness <i>Katedra Ekonomii i Polityki Gospodarczej w Agrobiznesie</i>
Students choose one of three optional subjects, the subject will be launched if at least seven students choose it (2 ECTS)										

Elective modules I (semester 4)										
<b>MLA.</b>	<b>12</b>									
- Medicinal Plants	2		15	15		5	15	GA	GH	Department of Vegetable Crops/ Department of Genetics and Plant Breeding/Department of Biochemistry and Biotechnology/Department of Entomology and Environmental Protection <i>Katedra Warzywnictwa/ Katedra Genetyki i Hodowli Roślin/Katedra Biochemii i Biotechnologii/ Katedra Entomologii i Ochrony Środowiska</i>
- Less Known Edible Plants	2		15	15		5	15	GA	GH	
- Cell and Tissue Cultures in Plant Breeding and Production	5	300	30	30		10	55	GA	GH	
- Fauna in the Agroecosystems	3		15	20		5	35	GA	GH	

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			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
<b>MLB.</b> - Enzymology - Cell Biology - Data Analysis - Plant Cytogenetics	<b>12</b> 3 2 3 4	300	15 15 15 15	20 15 30 30		5 5 5 10	35 15 25 45	GA GA GA GA	GH GH GH GH	Department of Biochemistry and Biotechnology/ Department of Mathematical and Statistical Methods/ Department of Genetics and Plant Breeding <i>Katedra Biochemii i Biotechnologii/ Katedra Metod Matematycznych i Statystycznych/ Katedra Genetyki i Hodowli Roślin/</i>
<b>MLC.</b> - Basics of Fertilizers Synthesis and Chemistry - Diagnostic of Plant Pests and Pathogens - Agricultural Microbiology - Weed Management	<b>12</b> 5 2 2 3	300	20 15 15 20	25 16 20 20	4	5 5 5 10	75 10 10 25	GA GA GA GA	GH GH GH GH	Department of Agricultural Chemistry and Environmental Biogeochemistry/ Department of Phytopathology, Seed Science and Technology/Department of Entomology and Environmental Protection/ Department of Soil Science and Microbiology/ Department of Agronomy <i>Katedra Chemii Rolnej i Biogeochemii Środowiska/ Katedra Fitopatologii i Nasiennictwa/ Katedra Entomologii i Ochrony Środowiska/ Katedra Gleboznawstwa i Mikrobiologii/ Katedra Agronomii</i>
Students choose one of three optional modules, the module will be launched if at least seven students choose it (12 ECTS)										

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		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11

Elective modules II (semester 5)										
<b>MILA.</b>	<b>12</b>									
- Fruit Production	2		15	15		5	15	GA	GH	Department of Ornamental Plants, Dendrology and Pomology/ Department of Land Improvement, Environmental Development and Spatial Management/ Department of Vegetable Crops/ Department of Agricultural Chemistry and Environmental Biogeochemistry <i>Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/Katedra Melioracji Kształtowania Środowiska i Gospodarki Przestrzennej Katedra Warzywnictwa/ Katedra Chemii Rolnej i Biogeochemii Środowiska</i>
- Designing of Irrigation and Fertigation Systems	2		15	20		5	10	GA	GH	
- Post-harvest Technology of Vegetable Crops	1	300	10	10		1	4	GA	GH	
- Post -harvest Technology of Fruit Crops Commodities	2		15	10		5	20	GA	GH	
- Nutrients Deficiencies Evaluation in Plants	5		30	30		9	56	GA	GH	

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		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
<b>MIL.B.</b> - World Seed Market - Ecological Fruit Production - Digital Agriculture - New Breeding Techniques - Resistance Breeding - Environmentally Smart Agriculture	<b>12</b> 2 1 2 3 2 2	300	15 10 15 15 15 15	15 10 15 15 15 15		5 1 5 4 5 5	15 4 15 41 15 15	GA GA GA GA GA GA	GH GH GH GH GH GH	Department of Phytopathology, Seed Science and Technology/ Department of Ornamental Plants, Dendrology and Pomology/ Department of Agronomy/ Department of Biosystems Engineering/ Department of Genetics and Plant Breeding/ Department of Entomology and Environmental Protection <i>Katedra Fitopatologii i Nasiennictwa/ Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/ Katedra Agronomii/ Katedra Inżynierii Biosystemów/ Katedra Genetyki i Hodowli Roślin/ Katedra Entomologii i Ochrony Środowiska</i>
<b>MIL.C.</b> - Propagation of Trees and Bushes - Epidemics of Plant Diseases - Open Field Cultivation of Horticultural Crops - Pests of Storage Products - Propagation of Ornamental Plants - Saprophytic and Pathogenic Microbiota of Plants, Animals and Humans	<b>12</b> 2 2 3 2 1 2	300	15 15 25 15 5 15	15 15 15 15 5 15		3 4 5 4 5 4	17 16 30 16 10 16	GA GA GA GA GA GA	GH GH GH GH GH GH	Department of Phytopathology, Seed Science and Technology/ Department of Ornamental Plants, Dendrology and Pomology/ Department of Vegetable Crops/ Department of Entomology and Environmental Protection/ Department of Soil Science and Microbiology <i>Katedra Fitopatologii i Nasiennictwa/ Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/ Katedra Warzywnictwa/ Katedra Entomologii i Ochrony Środowiska/ Katedra Gleboznawstwa i Mikrobiologii</i>



Course	Number of ECTS credits	Number of hours						Asses-ment <sup>3</sup>	Group type	Department
		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
Students choose one of three optional modules, the module will be launched if at least seven students choose it (12 ECTS)										
<b>Elective modules III (semester 6)</b>										
<b>MIII.A.</b>	<b>15</b>									
- Alien and Invasive Animal Species	2		15	15		5	15	GA	GH	Department of Ornamental Plants, Dendrology and Pomology/
- Tropical Agriculture	3		30	-		5	40	GA	GH	Department of Vegetable Crops/
- Protected Cultivation of Horticultural Crops	4	375	45	15		5	35	GA	GH	Department of Agricultural Chemistry and Environmental Biogeochemistry/
- AutoCAD for Horticulture	2		-	30		5	15	GA	GH	Department of Entomology and Environmental Protection
- Less Known Species of Fruit Plants	2		10	15		5	20	GA	GH	<i>Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/ Katedra Warzywnictwa/</i>
- Dendrology	2		10	15		5	20	GA	GH	<i>Katedra Roślin/ Katedra Chemii Rolnej i Biogeochemii Środowiska/ Katedra Entomologii i Ochrony Środowiska</i>

Course	Number of ECTS credits	Number of hours						Asses-ment <sup>3</sup>	Group type	Department
		Total (4+5+6+7+8)	Teaching hours			Contact hours	ESW <sup>2</sup>			
			Lectures	Practical classes	Others <sup>1</sup>					
1	2	3	4	5	6	7	8	9	10	11
<b>MIII.B.</b> - Aquatic Ecosystems in Agricultural Landscape - Evolution of Crop Plants - Plant Protection in Organic Farming - Aspects of Plant Diseases and Pests in Urban Areas - Automation of Production and Climate Control in Greenhouses - Trends in Vegetable Production - Trends in Fruit Production - Virology	<b>15</b> 1 1 2 3 2 2 2 2	  375       	 15 15 15 10 10 10 10	 5 - 15 12 20 15 15	  3     	 1 1 3 5 5 5 5	 4 9 17 40 15 20 20 20	 GA GA GA GA GA GA GA GA	 GH GA GH GH GH GH GH GH	Department of Botany/ Department of Ecology and Environmental Protection/ Department of Genetics and Plant Breeding/ Department of Phytopathology, Seed Science and Technology/ Department of Entomology and Environmental Protection/ Department of Vegetable Crops/ Department of Ornamental Plants, Dendrology and Pomology/ Department of Biochemistry and Biotechnology <i>Katedra Botaniki/ Katedra Ekologii i Ochrony Środowiska Katedra Genetyki i Hodowli Roślin/ Katedra Fitopatologii i Nasiennictwa/ Katedra Entomologii i Ochrony Środowiska/ Katedra Warzywnictwa/ Katedra Roślin Ozdobnych, Dendrologii i Sadownictwa/ Katedra Biochemii I Biotechnologii</i>
Students choose one of two optional modules, the module will be launched if at least seven students choose it (15 ECTS)										

