

**Annex No. 3**  
*To the education program*  
*at the Interdisciplinary Doctoral School of Agricultural Sciences*

**Institute of Animal Reproduction and Food Research of the Polish Academy of Sciences in Olsztyn**

Disciplines: 1) animal science and fisheries; 2) nutrition and food technology

Item	Number of hours	ECTS points	Year	Form of crediting	Learning outcomes <sup>1</sup>
<b>1. Obligatory Courses</b>					
<b>1.1. Major:</b> <b>1.1.1.</b> related to the discipline of animal science and fisheries <b>1.1.2.</b> related to the discipline of nutrition and food technology	30	2	I/II	Exam	W01, W02, W03, W04, U03, K01, K03
<b>1.2.</b> Statistical methods in scientific research	30	2	I/II	Exam	W06, U06, K02, K03, K04, K05
<b>1.3.</b> Ethical and legal aspects in scientific research	5	1	I/II	Pass with grade	W08, U06, K05, K06, K07
<b>1.4.</b> Specialized workshops in a selected foreign language	30	2	1st/2nd year	Exam	W05, U04, U05, K03, K02, K04
<b>1.5.</b> Fundraising for research and project preparation	15	2	1st/2nd year	Pass with grade	W07, U01, U05, K02, K03, K05, K06
<b>1.6.</b> Preparation and editing of a scientific text	15	2	I/II	Pass with grade	W04, W05, U01, U04, U06, K02, K03, K04, K05
<b>1.7.</b> Copyright and Intellectual Property	5	1	I/II	Pass with grade	W08, U01, K01, K02, K03, K04, K05, K06
<b>2. Elective courses</b>					
<b>2.1.</b> Molecular biology techniques	15	2	I/III	Pass with grade	W02, W03, U01, U02, U03, K02, K03, K04, K05, K08
<b>2.2.</b> Microbiology	15	2	II/III	Pass with	W02, W03,

				grade	U01, U02, U03, K02, K03, K04, K05, K08
<b>2.3.</b> Proteome Analysis Methods	10	2	II/III	Pass with grade	W02, W03, U01, U02, U03, K02, K03, K04, K05, K08
<b>2.4.</b> Advanced methods of metabolome analysis	10	2	II/III	Pass with grade	W02, W03, U01, U02, U03, K02, K03, K04, K05, K08
<b>2.5.</b> Sensory analysis of food	12	2	II/III	Pass with grade	W02, W03, U01, U02, U03, K02, K03, K04, K05, K08
<b>2.6.</b> Techniques <i>in in vitro</i>	15	2	II/III	Pass with grade	W02, W03, U01, U02, U03, K02, K03, K04, K05, K08
<b>2.7.</b> Cell and tissue imaging	15	2	II/III	Pass with grade	W02, W03, U01, U02, U03, K02, K03, K04, K05, K08
<b>2.8.</b> Transfer of knowledge and technology	5	1	II/III	Pass with grade	W08, U01, K03, K04, K05, K07
<b>2.9.</b> Epigenetics	15	2	I/IV	Passing	W01, W02, U03, K01, K03
<b>2.10.</b> Nutrigenomics	15	2	I/IV	Passing	W01, W02, U03, K01, K03
<b>2.11.</b> disciplinary lecture	5	1	I/IV	Passing	W01, W02, U03, K01, K03
<b>2.12.</b> extra-disciplinary lecture	5	1	I/IV	Passing	W01, W02, U03, K01, K03
<b>3. Seminar</b>	60	4	I/IV	Passing	W01, W02, W03, U01,

					U03, U04, U06
<b>4. Other scientific activities</b>					
<b>4.1.</b> Conducting your own research project/grant	2 ECTS/project	4	I/IV	Passing	W01, W02, W03, W04, W05, W06, W07, W08, U01, U02, U03, U04, U05, K01, K02, K03, K04, K05, K06, K07, K08, K09
<b>4.2.</b> Research internship abroad	2 ECTS/internship	4	I/IV	Passing	W01, W02, W03, W05, U01, U02, U03, U04, K01, K02, K03, K04, K05, K06, K07
<b>4.3.</b> Participation in a research/commercialization /implementation project	design	2	I/IV	Passing	W01, W02, W03, W05, W06, W07, W08, U01, U02, U03, U04, U05, K01, K02, K03, K04, K05, K06, K07, K08
<b>4.4.</b> Presentation at a scientific conference	1 ECTS/conference	3	I/IV	Passing	W01, W02, W03, W05, U01, U02, U03, U04, K01, K02, K03, K05,
<b>4.5.</b> Authorship of a scientific publication from the current list of the Ministry of Science and Higher Education	4 ECTS/publication	8	I/IV	Passing	W01, W02, W03, W04, W05, W06, W07, W08, U01, U02, U03, U04, U05, K01, K02, K03,

					K04, K05, K06, K07, K08, K09
<b>4.6.</b> Activities promoting science	1 ECTS/ac tivity	3	I/IV	Passing	W01, W02, W04, W05, W08, U01, U04, K01, K02, K05, K06, K08
<b>5. Professional practice</b>	10	1	I/IV	Passing	W01, W02, W03, W05, W08, W09 U01, U02, U03, K01, K03, K06, K07, K09

<sup>1)</sup> Learning outcomes achieved as a result of completing a given subject. A detailed description of the outcomes marked with symbols can be found in *Annex 6 to the Education Program*.