## SYLLABUS OF PhD Studies at the Institute Agrophysics, Polish Academy of Sciences 2016-2020

The syllabus of Doctoral Studies provides for the compulsory lectures in the major field of - agronomy/agrophysics and elective classes in the chosen subjects implemented at the Institute. The syllabus reflects the latest advancements in research, whereas tuition aims to develop independence of a young researcher and his dedication to the dissemination of science and knowledge.

The syllabus complies with the requirements in terms of the compulsory tuition load for doctoral studies -45 ECTS credits, with the specification of the load - the number of hours of instruction, manner of granting credits and assigned ECTS credits. The syllabus provides for 30 credits for the compulsory classes, 5 credits for elective courses and 10 credits for the acquisition of social skills in the field of scientific research, experimental development and the role of a researcher in society.

of hoursECTS Examination/CreditCompulsory:In the major discipline of agronomy/agrophysicsIn the major discipline of agronomy/agrophysicsImage: Soil Environment ManagementSoil Environment Management15154Tillage and Plant Cultivation154EApplied Physics154EExtending knowledgeImage: Soil Environment ManagementImage: Soil Environment Management15154EImage: Soil Environment Management154Extending knowledgeImage: Soil Environment ManagementImage: Soil Environment Management15154Extending knowledgeImage: Soil Environment ManagementImage: Soil Environment ManagementImage: Soil Environment ManagementImage: Soil Environment Management154EExtending knowledgeImage: Soil Environment ManagementImage: Soil EnvironmentImage: Soil Environment ManagementImage: Soil EnvironmentImage: Soil Environment ManagementImage: Soil EnvironmentImage: Soil EnvironmentImage: Soil EnvironmentImage: Soil EnvironmentIma
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Applied Physics  15  4  E    Extending knowledge
Extending knowledge
Laboratory methods of environmental and food analysis 30 6 E
Methods of statistical analysis of experimental data 30 4 E
English 60 3 E
Doctoral Seminar – Supervisors/Tutors 48 5 Credit
(Each doctoral student at least 1 hour per semester)
Total 213 30
Electives*)
Elective lectures as per the list in <b>15 5 E</b>
the Curriculum
Social skills
International annual " <b>BioPhys</b> " workshop for young - 2 Credit
researchers, alternately
in Lublin, Prague, Nitra, Godollo
", Piknik naukowy" [Science Picnic] by Radio BIS and - 2 Credit
Lubolahi Eastimal Nonhi? (Lublin Science Easting)
",Ludelski Festiwal Nauki [Ludin Science Festival] – - 2 Credit
auchded in the first year, preparing the snow in the second
Seminars and nationwide workshops along with other 2 Crodit
entities (i.a. the Warsaw University of Life Science)
Participation in the conduct of classes under PhD Studies - 2 Credit
Total 10
Ph D. Conferment Procedure
Commencement of Ph D Conferment Procedure – the
third year of Doctoral Studies
Total 228 45

\*) A set of elective courses is updated for each academic year by the Director of the Institute, at the request of the Deputy Director for Scientific Affairs, along with the determination of the number of teaching hours and the number of ECTS credits and manner of obtaining a credit.

Elective courses are conducted with attendance of not less than 3 persons.

The Doctoral Studies syllabus is implemented over eight semesters, according to the schedule shown below.

## Curriculum of PhD Studies at the Institute of Agrophysics, Polish Academy of Science applicable from the academic year 2016/2020

Classes	number of hours	ECTS	first year number of hours	second year number of hours	third year number of hours	fourth year number of hours	form of obtaining credit
Compulsory:							
in the major discipline of agronomy/agrophysics							
Soil Environment Management	15	4	15				examination
Tillage and Plant Cultivation	15	4	15				examination
Applied Physics	15	4	15				examination
Extending knowledge							
Laboratory methods of environmental and food analysis	30	6		30			examination
Methods of statistical analysis of experimental data	30	4		30			examination
English	60	3	30	30			examination
Doctoral Seminars *)	48	5	30	30	30	30	credit
Total	213	30	105	120	30	30	
Electives:							
Microbiology of environment – Magdalena Frąc, <i>PhD</i> , <i>DSc</i>	5	2	5				examination
Structure and mechanics evaluation of plant biomaterials.— Artur Zdunek <i>PhD</i> , <i>DSc</i> , Associate Professor of the Institute of Agrophysics, PAS	15	3			10		examination
Biogeochemical processes in the environment – Małgorzata Brzezińska, <i>PhD</i> , <i>DSc</i> , Associate Professor of the Institute of Agrophysics, PAS	5	2		5			examination
Agrophysical metrology – Professor Wojciech Skierucha, <i>PhD</i> , <i>DSc</i> , Agnieszka Szypłowska Ph.D.	10	3		10			examination

Charge and surface properties of solids and accompanied effects. Measurements and applications for soil and plant materials – Professor Grzegorz Józefaciuk, <i>PhD</i> , <i>DSc</i>	5	2			5		examination
Total requirements for credit	15	5					
Social kills:							
"BioPhys" workshops		2		+	+		credit
"Piknik naukowy" *)		2	+	+			credit
"Lubelski Festiwal Nauki" *)		2	+	+			credit
Seminars and nationwide workshops *)		2	+	+	+	+	credit
Participation in the conduct of classes under Doctoral Studies *)		2			+	+	credit
Total		10					

\*) The classes are attended by a doctoral student along with their research supervisor.