Subject name	**Molecular Markers in Poultry Breeding and Bird Conservation**	
Subject code	**H.DFZa.MOL9.SM.HZOBY**	
Department	**Swine and Small Animal Breeding**	
Faculty	**Animal Sciences**	
Subject supervisor/Lecturer	**Dr. Krzysztof Andres**	
General information	**semester**	**summer**
	ECTS credits	**3**
	Lectures total	**10 hrs**
	Laboratories	**10 hrs**
Objective and general description	The course provide an introduction to molecular markers and their use in avian conservation, breeding and management. The laboratory practicals will be given to provide a complete method of evaluation of genetic diversity in poultry with the use of STR markers. **Lectures :** 1. Genetic markers in biodiversity analysis and conservation studies. 2. Application of DNA markers for the study of population structure of wild and domestic birds. 3. Molecular markers in avian taxonomy and phylogeny. 4. Molecular markers and linkage mapping in poultry. 5. Molecular DNA sex typing of birds. **Lab practicals**: Amplification and detection of STR markers in endangered populations of indigenous poultry breeds and varieties. Statistical analysis of molecular data.	
Assessment method	test	
References	Avise, J.C. 2004. Molecular Markers, Natural History, and Evolution (Second Edition). Sinauer, Sunderland, MA. (684 pp.). Crawford R.D.: Poultry Breeding and Genetics. Elsevier Science Publishing Company, New York, USA, 1990. Muir W.M., SE Aggrey S.E.: Poultry Genetics, Breeding and Biotechnology. CABI, Wallingford, UK, 2003.	