

Subject name	Reproduction in Birds	
Subject code	H.DFZa.REP9.SM.HZOXY	
Department	Swine and Small Animal Breeding	
Faculty	Animal Sciences	
Subject supervisor/Lecturer	Dr. Malgorzata Gumulka	
General information	semester	summer
	ECTS credits	1
	Lectures total	15 hrs
	Laboratories	0
Objective and general description	<p>The objective of the course is provide students with theoretical and practical knowledge of domestic and wild birds reproduction. After the course student should be able to organize and manage reproduction in commercial poultry farms and to control reproduction of amateur birds. Understanding of specific of birds reproduction provides the basis for implementing effective management programs for both in situ and ex situ protection of endangered breeds of poultry and wild birds.</p> <p>Lectures</p> <ol style="list-style-type: none"> 1. Reproduction behaviour of birds 2. Avian male and female reproductive organs 3. Seasonality of birds reproduction 4. Laying pattern of poultry 5. Sperm storage in the oviduct 6. Methods of evaluation of birds reproductive efficiency 7. Artificial insemination in reproduction of birds 8. Poultry reproduction under intensive production conditions 9. Application of reproduction in maintaining of birds biodiversity <p>Lab practical's</p> <ol style="list-style-type: none"> 1. Observations of reproduction behaviour of domestic birds 2. Semen collection, evaluation and artificial insemination 3. Sperm penetration assay in vivo and in vitro 4. Sex determination of domestic birds: sexing day- old chicks 	
Assessment method	examination	
References	<ol style="list-style-type: none"> 1. Etches R. J.: Reproduction in Poultry. CABI, Oxford, UK, 1996. 2. Etches R.J.: Manipulation of the Avian Genome. CRC Press. Inc., Boca Raton, Florida, 1993. 3. Appleby M.C., Mench J.A., Hughes B.O.: Poultry Behaviour and Welfare. CBI Publishing Oxfordshire, UK, 2004. 	

Subject name Subject code Department Faculty Subject supervisor/Lecturer General information. Objective and general description. Assessment method References. Reproduction in Birds H.DFZa.REP9.SM.HZOXY Swine and Small Animal Breeding Animal Sciences. Dr. MaÅ,gorzata GumuÅ,ka. semester. All animals have a compara-tively long and flexible snouts ending in a rounded disk used to did for food. The thick but sen-sitive skin is partly covered with coarse bristles and shows a wide range of colour patterns. All swine including. domestic pigs are quick-footed, intelligent animals. Pigs are well-adapted to temperate and semitropical climates and pig breeding is an im-portant branch of animal husbandry in many different countries. Estimating the worldwide population of domestic pigs at more than 940 million, pig breeders distinguish about 300 breeds or local varieties of pigs raised th... Animal breeding involves the selective breeding of domestic animals with the intention to improve desirable (and heritable) qualities in the next generation.Â The book is organised such that each chapter starts with a general description of the subject, what is its role in a breeding program, and some points of attention. Then we go a bit deeper and introduce tools (formulas) that provide results to help executing the step in the breeding program accurately. Speed breeding can be used to achieve up to 6 generations per year for spring wheat (*Triticum aestivum*), durum wheat (*T. durum*), barley (*Hordeum vulgare*), chickpea (*Cicer arietinum*), and pea (*Pisum sativum*) and 4 generations for canola (*Brassica napus*), instead of 2-3 under normal glasshouse conditions. We demonstrate that speed breeding in fully-enclosed controlled-environment growth chambers can accelerate plant development for research purposes, including phenotyping of adult plant traits, mutant studies, and transformation. The use of supplemental lighting in a glasshouse environment allows rapid generation cycling through single seed descent and potential for adaptation to larger-scale crop improvement programs. Collection Policy: ANIMAL SCIENCE Subject Scope Priority Tables Other policies TEACHING, RESEARCH AND EXTENSION PROGRAMS 1.1 Mission and emphases of the department The major focus of the department.Â Swine as a Model in Medicine Aquaculture (Described in Agricultural Engineering policy.) Tropical Livestock Production. 5 Including economic objectives, production methods, and alternative systems of production.Â Companion animals, especially nonconventional varieties, such as exotic birds and rabbits. 3.0 SPECIAL INFORMATION NEEDS AND RESOURCES 3.1 Special information needs of those working in this subject area. Agricola, cab, biosis. NetVet, on the World Wide Web, is also used.