

Subject name	Phenomenon of Seasonality in Small Ruminants	
Subject code	H.HTCa.PHE9.SM.HZOXY	
Department	Animal Biotechnology	
Faculty	Animal Sciences	
Subject supervisor/Lecturer	Professor Dorota Zięba -Przybylska	
General information	semester	summer
	ECTS credits	3
	Lectures total	15 hrs
	Laboratories	10
Objective and general description	<p>The main objective of the course is the characterization of the phenomenon of seasonality of reproductive processes, mainly in sheep and goats with relation to photoperiod changes and circadian clock.</p> <p><u>Lectures:</u> Functions of mammalian neuroendocrine system Mammalian biological clock The anatomical and functional structure of pineal gland The role of light in the process of melatonin synthesis and release Influence of environmental factors of reproductive functions Reproductive activity in sheep and goats Circadian rhythms in melatonin, prolactin, leptin and orexin secretions in ruminants</p> <p><u>Laboratories</u> The sexual behaviour of ewe and ram Laparoscopic observation of ovaries Ultrasonographic visualization of reproductive track in ewes Isolation and organotypic culture of pineal gland</p>	
Assessment method	Adam C.L, Mercer J.G: Appetite regulation and seasonality: implications for obesity. Proc. Nutr. Soc. 2004; 63:413-419 Harrison J.L., Miller D.W, Findklay P.A., Adam C.L: Photoperiod influences the central effects of ghrelin on food intake, GH and LH secretion in sheep Neuroendocrinol.2008; 87:182-192 Karasek M: Ultrastructure of the mammalian pineal gland its comparative and functional aspects. Piseal Res.Rev.1983;1:1-48	
References		