



Workshop on survival analysis

Workshop arranged by Graduate School for Veterinary Medicine and Animal Sciences (GS-VMAS)

Date: 21-22 and 24 May, 2018

Location: Tanngrisner 2, VHC, Uppsala

Survival analysis was originally developed in medical statistics to analyse effects of factors on survival times. The purpose of such analyses is to find out whether certain treatments or events affect the time until the occurrence of an outcome, which can be something negative (e.g. death, disease) or something positive (e.g. recovery, task completion). Censoring, e.g. that not all study objects have the outcome of interest until the end of follow-up, is a problem characteristic to most survival data, and requires special data analytic techniques. Cox regression models are one of the most commonly used method of analysing survival data.

This 2-day workshop will give an introduction to time-to-event data and discuss the use of Cox models to analyse these data. The necessary statistical theory will be presented, but the course will focus on practical examples. Lab sessions will give students the opportunity to apply the theory to real datasets using Stata version 15 (comprehensive supplementary material will be provided for R software, based on standard R libraries).

An optional third day is also offered, open to participants who attended days 1 and 2 OR had equivalent training in survival models (see condensed schedule below), which will cover analysis of clustered data with frailty models (1/2 day) and provide time for participants who have their own data to work on those data with assistance. There is, however, one day to “recover” between day 2 and 3, due to an already planned Faculty research day.

The workshop leader is Professor Emeritus Ian Dohoo (<http://www.upei.ca/avc/ian-dohoo>), from University of Prince Edward Island, a world-renowned scientist and teacher in veterinary epidemiology and an honorary doctor of SLU.

The text for the workshop will be Veterinary Epidemiologic Research (2009), 2nd edition (<http://www.upei.ca/ver>), or alternatively Methods in Epidemiologic Research (2012). Course participants will be provided with the chapter of the (former) book that deals specifically with survival analysis.

The workshop is open for PhD students, residencies and researchers. There is no fee for participation, but participants will have to cover their own meal costs (and, of course, travels and accommodation).

Schedule:

Day 1: Life tables, Kaplan-Meier, hazard functions, Cox semi-parametric models

Day 2: Time-dependent variables, Cox model diagnostics

Day 3: Frailty in Cox models, work on own data

Registration: <https://www.netigate.se/ra/s.aspx?s=545712X117793226X68692>

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Last date for application: May 7, 2018

unless we reach the maximum number of participants (25) before