

2021 SISCER Module 3 APC Modeling Course Outline

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Course Details

- ▶ Course will be taught remotely over July 8–July 9, 2021.
- ▶ Lectures will last for approximately 45 minutes, followed by R sessions.
- ▶ Lectures will be recorded so that they may be reviewed later.
- ▶ Questions can be asked over zoom or ask live!
- ▶ Course materials are here:
<http://faculty.washington.edu/jonno/SISCER-APC.html>

Course Outline

DAY 1: Thursday 8 July:

- ▶ 8.30–9.15: **Session 1 Lecture:** Preliminaries; initial tabulations and plotting; Factor models.
- ▶ 9.15–10.00: **Session 2 R Practical:** Danish lung cancer data, Epi package.
- ▶ 10.00–10.30: **Break**
- ▶ 10.30–11.15: **Session 2 Lecture:** Age-Period and Age-Cohort Models; Identifiability; Parameterization.
- ▶ 11.15–12.00: **Session 2 R Practical:** AP and AC model fitting; Epi and apc packages.

DAY 2: Friday 9 July:

- ▶ 8.30–9.15: **Session 3 Lecture:** Splines, Smoothing, Bayes, INLA.
- ▶ 9.15–10.00: **Session 3 R Practical** Spline models and smoothing with INLA.
- ▶ 10.00–10.30: **Break**
- ▶ 10.30–11.15: **Session 4 Lecture:** Bayesian methods for APC; Forecasting.
- ▶ 11.15–12.00: **Session 4 R Practical:** BAPC package.