

2020 SISCER Module 7 APC Modeling Course Outline

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Course Details

- ▶ Course will be taught remotely over July 23–July 24.
- ▶ 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 put on the slack channel.
- ▶ Course materials are here:
<http://faculty.washington.edu/jonno/SISCER-APC.html>

Course Outline

DAY 1: Thursday 23 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.
- ▶ 10.00–13.00: **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 24 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.