

# 1 Program for APC-course

## 1.1 General contents

The course will give a fairly thorough introduction to follow-up data at the individual level and in particular how these are transformed into tabular data. This is the fundamental prerequisite for understanding the structure of tabular follow-up data (counts/person-years) and the use of APC-models for this type of data.

The so-called identifiability problem in APC-models will be rigorously shown to be a parametrization problem, and various options for necessary assumptions will be treated, and the basic mathematics (linear algebra) for dealing with them will be covered.

## 1.2 Program structure

The daily program will have one lecture and one practical session each morning and each afternoon.

Lectures will be between 45 and 90 minutes; normally with one or two breaks.

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### Time schedule

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9:15	Lectures / pracs
10:30	Coffee break (about 20 min)
12:30	Lunch
14:00	Lectures / pracs
15:30	Coffee break (about 20 min)
17:30	Close of day

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### Course contents

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#### Monday 19th September

Morning	Overview of follow-up data. Likelihood for follow-up data. Poisson likelihood. Relation to Cox partial likelihood. Lexis diagrams. Tabular data in the Lexis diagram. Lexis triangles
Afternoon	Poisson models for tabular data. Splines and other parametric smoothers. Relation to factor models.

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#### Tuesday 20th September

Morning	Age-Period and Age-Cohort models and their parametrization.
Afternoon	Age-Period-Cohort model. The identifiability problem, projections and subspaces.

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#### Wednesday 21st September

Morning	APC-models for different outcomes. APC-models for different groups.
Afternoon	Reporting APC-models; tabular and graphical representation. APC-models for prevalences and other types of data. Evaluation and wrap-up.

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### 1.3 Teacher

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