

## LAB SESSION 10

### Outline of lab session:

- lab review session is unmanned (no instructor),
- Minitab review for linear regression and correlation:<sup>1</sup>
  - \* scatterplots: **Graph-Scatterplot**,
  - \* correlation: **Stat-Basic Stats-Correlation**
  - \* regression analysis: **Stat-Regression-Fitted Line Plot** (nice plots, but limited statistics) or **-Regression-Fit Regression Model**,
  - \* prediction: *intervals*: **Stat-Regression-Regression-Predict** after fitted model; *bands*: “Options” in **Fitted Line Plot** menu.
- individual work on the exercises, and time for questions...:  
2:11,48; 10:38,39; 2:12,27,28,60,2; 10:7,**17**,12,**33**; x:20,**21**; final2016:2;  
**final2006:3**; 10:27 (2:57,59; 10:18,26,40; x:22) — recommended order,
- summary worksheet: S.10 (**sales**).

### Notes and questions for specific exercises:

- 2.48, 10.38: analyze also without one extreme obs., and compare,
- 10.7: explore also the impact of observation no. 7,
- 10.12, 10.40: hand calculation (computer of limited use),
- x.20, final2016.2: practice for critique of journal articles,
- x.22: Minitab menu to compute ranks: **Data-Rank**.<sup>2</sup>

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<sup>1</sup> Stata for linear regression (for R methods, see R programs):

- scatterplots in **Graphics-Twoway** menu, create scatter plot (basic) and fitted line (fit plots, linear prediction),
- regression analysis: **Stat-Linear-Linear Regression**,
- prediction (“forecast” in Stata): **Stat-Postestimation-Predict**.

<sup>2</sup> Stata: **egen rank** command; R: **rank** function.