

**Laboratory exercises** relevant to  
**Data Analysis and Graphics Using R**  
– **An Example-Based Approach**

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Below, there is reference to two collections of laboratory exercises, neither specifically designed for use with *Data Analysis and Graphics Using R* (DAAGUR).

- The three sets of exercises in Maindonald (2006), referred to as RLABS, give practice with R.
- The ten sets of exercises in Maindonald (2006), referred to as DALABS, provide practice with the use of R for data analysis.

Chapter(s) or Section	Laboratory or laboratories	Notes
1 – 2	RLABS (all 3)	Practice with R
3	DALABS I	Sections 3.2 to 3.4 (Distributions & samples)
4	DALABS II	Sampling distributions. Note the functions <code>simulateSampDist()</code> and <code>plotSampDist()</code> ( <i>DAAGxtras</i> ) that are designed for the simulation of sampling distributions.
5	DALABS III, Sections 1 & 2	Straight line models.
6	DALABS III, Section 3	Multiple regression
6	DALABS III, Section 4	Simulation of the simple “errors in variables” model that is described in Section 6.8.1
7	DALABS IV	Models that may include factor and/or spline terms
4 & 8	DALABS V	Multi-way tables. Note especially exercises data that relate airbag deployment to accident survival (Meyer and Finney, 2005)
10	DALABS VI	Multi-level models
11	DALABS VII	Tree-based methods; <code>rpart()</code> and <code>randomForest()</code>
12.1	DALABS IX	This substantially extends the discussion of ordination in Section 12.1.3
12.2	DALABS VIII, X	Discriminant methods

## References

- Maindonald, J. H. 2006a. Practice with R – Laboratory Exercises.  
<http://www.maths.anu.edu.au/~johnm/courses/dm/rintro/r-tutorials.pdf>
- Maindonald, J. H. 2006b. Data Analysis with R Laboratories – Sets of Exercises, with R Code.  
<http://www.maths.anu.edu.au/~johnm/courses/dm/statminers/statminers-labs.pdf>
- Meyer, M.C. and Finney, T. (2005): ‘Who wants airbags?’. *Chance* 18:3-16.

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