

**Business Analytics**  
**ECON 364**  
**Professor Tomas Dvorak**  
**Winter 2016**

This is the first year Tomas has taught a new course entitled Business Analytics. The key learning objective is for students to be able to manipulate and analyze business data. The course is very hands-on with students programming in R Markdown from the first day. The emphasis is on data manipulation: students need to load in data, summarize, reshape, merge and append the data in multiple ways to get insights. In this course students realize that data preparation and manipulation is 90% of the work of an empirical researcher or an analyst. Running a regression or a sophisticated algorithm is the last and fairly straightforward step. The value of any analysis lies mostly in the quality and organization of the data. Using R Markdown forces students to integrate data manipulation and analysis with text. Their final project is always reproducible because it is a knitted R Markdown document. Even if they don't end up using R Markdown in the future (e.g. their thesis), the course gives them programming skills that are essential to reproducible research.