Syllabus for Data handling and analysis with MATLAB in Geoscience, NAGE001

Swedish title: Datahantering och analys med MATLAB inom Geovetenskap

The course syllabus was confirmed by the Faculty board for graduate studies on 2014-02-06. Third cycle course, 3 credits.
This is a translation of the course syllabus approved in Swedish.

Learning outcomes
To provide the students with skills and knowledge regarding relevant basic as well as advanced methods for efficient handling and analysis of geo-scientific data with MATLAB

Course content
1. Data handling, syntax, reading and writing of data, formatting. Data types and data structures.
2. Scripts and functions
3. Help resources, MATLAB-Central, online resources
4. Analytical methods
5. Statistical functions
6. Data visualization, data presentation and graphics.
7. Individual projects related to research topic.

Teaching
Lectures, exercises, discussions, written reports and oral presentations.

Assessment
Mandatory exercises and presentations.

Grading scale
Possible grades are Pass and Fail.

Language
The course is given in English.

Additional information
See http://www.cgb.lu.se/kurser.htm