From: Maarten van ’t Zelfde

To: Rutger Vos

Subject: Structure of the GIS week in the course Methods in Biodiversity Analysis.

Date: 07 June 2017

Overview whole course starting 27 november 2017 – 22 december 2017

Week 1: 27 nov – 01 dec 🡪 1D – Rutger  
**Week 2: 04 dec – 08 dec 🡪 2D – Maarten**  
Week 3: 11 dec – 15 dec 🡪 3D – Martin +  
Week 4: 18 dec – 22 dec 🡪 4D – Gastsprekers ( Pim K, Hans S, Jesus )

**Week 2 about: GIS and geospatial analysis and modelling**Day 1 – 04/12: Introduction  
Day 2 – 05/12: Data Input  
Day 3 – 06/12: Data Management (including basis Practical)  
Day 4 – 07/12: Data Analysis (including advanced Practical) 🡪 data preparation SDM  
Day 5 – 08/12: Data Output (visualization)

Morning Lecture in Sylvius / Afternoon Self Study or computer Practical

Day 1: Introduction presentation with a lot of examples GIS including geographical approach  
  
Day 2: Data Input

* Datasources
  + Webservices
  + Spatial datasets – Vector and Raster
  + Satellite images / Remote Sensing
  + Attribute data
  + Lidar Data 3 D
* Digitalisation
* Scanning
* GPS

Day 3: Data Management

* Basic database management
  + Records, Variables, Types, Quering
* Data formats including raster and vector
* Reclassification of remote sensing sources
* Vector 🡨🡪 Raster conversions
* Meta data
* Geodatabases
* Version management
* Backup
* Data history
* Data provenance
* Archive including compress
* Sharing data

Day 4: Data Analysis

* Overlay
* Reclassification
* Spatial Join
* Clip
* Neighbourhood analysis
* Flow Charts
* Model Builder
* Scripting Python

Day 5: Data Output

* Visualisation etc.
* Maps / Histograms/Tables
* WebGIS ?
* Export results
* Scenario analysis