SURVEYING AND AERIAL PHOTOGRAPHY - GE 2261
2009/2010, SEMESTER 1
Lecturer: Dr. Kazimierz Becek

PLAN OF LECTURES

1. Geomatics – definition, purpose, scope, tasks, and disciplines involved history and application in environmental studies.

2. Vertical datum, spirit level, geometrical, trigonometrical, barometric levelling, level instruments, InSAR, LiDAR, applications in environmental studies.

3. Horizontal datum, reference grid, coordinates azimuth and application in environmental studies.

4. Determination of horizontal coordinates geometric networks, GPS, GNSS, navigation and application in environmental studies.

5. Error handling procedures in Geomatics.

6. Digital elevation models; Application in environmental studies.

7. Geomatics engineering and other fields of application of Geomatics.

8. Geomatics as an intellectual framework for the data flow from reality to decision-maker.

9. Maps and Geographic Information Systems and their application in environmental studies.

10. Role of Survey Department; Brunei Spatial Data Infrastructure and its application in environmental studies.

11. Aerial photography as a data source and its application in environmental studies.

12. Photointerpretation of aerial and satellite imagery and its application in environmental studies.

13. Photogrammetry as science and technology for extraction of spatial data from aerial or satellite imagery.

14. Aerotriangulation, orthorectification and DEM production.