

**Course name: Advance GIS**

**Course code: GIS-506/DGID-506**

**Unit schedule**

**Block 1: Spatial Database**

**Unit1:GIS database**

- 1.1Objectives
- 1.2Introduction
- 1.3GIS database
- 1.4Summary
- 1.5Glossary
- 1.6Answer to check your progress
- 1.7References
- 1.8Terminal Questions

**Unit2:Characteristics of spatial & non spatial data**

- 2.1Objectives
- 2.2Introduction
- 2.3 Characteristics of spatial & non spatial data
- 2.4Summary
- 2.5Glossary
- 2.6Answer to check your progress
- 2.7References
- 2.8Terminal Questions

**Unit3:Topology creation and data query**

- 3.1Objectives
- 3.2Introduction
- 3.3Topology creation and data query
- 3.4Summary
- 3.5Glossary
- 3.6Answer to check your progress
- 3.7References
- 3.8Terminal Questions

## **Unit4:Data manipulation**

- 4.1Objectives
- 4.2Introduction
- 4.3Data manipulation
- 4.4Summary
- 4.5Glossary
- 4.6Answer to check your progress
- 4.7References
- 4.8Terminal Questions

## **Block 2: Spatial database raster analysis**

### **Unit5:Raster data manipulation and reclassification**

- 5.1Objectives
- 5.2Introduction
- 5.3Raster data manipulation and reclassification
- 5.4Summary
- 5.5Glossary
- 5.6Answer to check your progress
- 5.7References
- 5.8Terminal Questions

### **Unit6:Raster data analysis-local, focal, zonal and global**

- 6.1Objectives
- 6.2Introduction
- 6.3Raster data analysis-local, focal, zonal and global
- 6.4Summary
- 6.5Glossary
- 6.6Answer to check your progress
- 6.7References
- 6.8Terminal Questions

### **Unit7: Raster data analysis- arithmetic operations and decision rule based**

- 7.1Objectives
- 7.2Introduction
- 7.3 Raster data analysis- arithmetic operations and decision rule based
- 7.4Summary
- 7.5Glossary
- 7.6Answer to check your progress
- 7.7References
- 7.8Terminal Questions

## **Unit8: Raster data formats**

- 8.1 Objectives
- 8.2 Introduction
- 8.3 Raster data formats
- 8.4 Summary
- 8.5 Glossary
- 8.6 Answer to check your progress
- 8.7 References
- 8.8 Terminal Questions

## **Block 3: Spatial database vector analysis**

### **Unit9: Overlay analysis- union, intersection**

- 9.1 Objectives
- 9.2 Introduction
- 9.3 Overlay analysis- union, intersection
- 9.4 Summary
- 9.5 Glossary
- 9.6 Answer to check your progress
- 9.7 References
- 9.8 Terminal Questions

### **Unit10: Proximity analysis- buffering**

- 10.1 Objectives
- 10.2 Introduction
- 10.3 Proximity analysis- buffering
- 10.4 Summary
- 10.5 Glossary
- 10.6 Answer to check your progress
- 10.7 References
- 10.8 Terminal Questions

### **Unit11: Networking analysis: optimal path & neighborhood**

- 11.1 Objectives
- 11.2 Introduction
- 11.3 Networking analysis: optimal path & neighborhood
- 11.4 Summary
- 11.5 Glossary
- 11.6 Answer to check your progress
- 11.7 References
- 11.8 Terminal Questions

## **Unit12:Map manipulation**

**12.1**Objectives

**12.2**Introduction

**12.3**Map manipulation

**12.4**Summary

**12.5**Glossary

**12.6**Answer to check your progress

**12.7**References

**12.8**Terminal Questions

## **Unit13: Vector data formats**

**13.1**Objectives

**13.2**Introduction

**13.3**Vector data formats

**13.4**Summary

**13.5**Glossary

**13.6**Answer to check your progress

**13.7**References

**13.8**Terminal Questions