

# **RECOMMENDED COURSES FOR MASTERS RESTORATION STUDIES (UESD STUDENTS)**

## **1. CORE RESTORATION & ECOLOGICAL REHABILITATION COURSES**

### **Environmental Geotechnics**

- Soil mechanics in disturbed environments
- Stability of reclaimed landscapes
- Engineering solutions for restoration sites

### **Basic Groundwater Chemistry for Management**

- Contaminant behaviour
- Water restoration and remediation
- Hydrochemical monitoring

### **Hydrogeology for Groundwater Management**

- Aquifer restoration
- Groundwater recovery after disturbance
- Water sustainability planning

## **2. ECOLOGICAL & EARTH SYSTEM SCIENCE COURSES**

### **Basics of Climate Change**

- Climate drivers
- Ecosystem resilience
- Restoration under climate stress

## **3. LANDSCAPE MONITORING & RESTORATION TECHNOLOGY**

### **Applied Remote Sensing in Geosciences**

- Satellite monitoring of land degradation
- Change detection
- Restoration monitoring using spatial data

### **Geomodelling – Geostatistics for Natural Resource Modelling**

- Landscape modelling
- Predictive environmental analysis
- Restoration scenario simulation

## **4. REMEDIATION & BIOLOGICAL RESTORATION COURSES**

### **Biotechnology in Mining**

- Bioleaching
- Microbial remediation
- Acid mine drainage treatment

## **5. SUPPORTING PROFESSIONAL SKILLS**

- Project Management
- Scientific Communication in Geoscience