

**GEOLOGICAL SOCIETY OF SOUTH AFRICA
STRUCTURAL GEOLOGY COURSE
Ductile Deformation**

Presenter: Mike Watkeys, Emeritus Professor, University of KwaZulu-Natal

Objectives of course: To teach delegates how to identify, measure and analyse structures that form during ductile deformation and to understand their development

Dates: 21st -22nd May 2022

Location: Southbroom, KZN South Coast, which is approximately 2 hours drive south of Durban between Port Shepstone and Port Edward

Accommodation: Delegates need to book their own accommodation in the Southbroom area and must be in their accommodation by the evening of Friday 20th May.

Methodology: This course will take place entirely in the field on coastal outcrops of deformed, high grade rocks of the Mesoproterozoic Natal Metamorphic Complex. Delegates will receive course notes with key points and diagrams, and will be supplied with stereonet and tracing paper for plotting measurements.

Programme: Delegates need to assemble in the car park next to the Riptide restaurant, Imbezane Drive, Southbroom by 08:00 on Saturday 21st May.

Saturday

Session 1: Introduction to the factors controlling the development of ductile structures

Session 2: Identifying, describing and measuring ductile structures

Lunch

Session 3: Plotting and analysing ductile structures on stereonet

Session 4: Ductile structures that develop during compression

Sunday

Session 5: Ductile structures that develop during extension

Session 6: Ductile shear zones

Lunch

Session 7: Progressive ductile deformation: 3D and 4D reconstructions

Equipment required by delegates: All delegates must have:

- a compass-clinometer
- a hand-lens
- a pencil and eraser

As the course is taking place in the field, each delegate will need to bring water and a packed lunch on both days. There are toilets on a nearby beach.

Background information about the presenter:

Mike Watkeys obtained his BSc (Hons) from the University of Wales. He was employed by the erstwhile Rhodesian Geological Survey before completing his PhD at the University of the Witwatersrand. After a stint as a post-doc at the University of Cape Town he joined the lecturing staff of the University of Natal (Durban) which morphed into the University of KwaZulu-Natal by the time of his retirement. He has been a visiting professor at a number of overseas universities and taught the structural geology module in the MSc course in economic and exploration geology at Rhodes University for over a decade. He has undertaken consultancy work in structural geology in an economic context for local and international companies around the World for over four decades during which time he has run numerous short courses in structural geology for the mining industry.