

## Course topics

<b>COURSE I:</b>	
<b>GIS methodologies for climate characterization, and the study of climate variability and change in savanna systems</b>	
<b>29-Oct</b>	<p><b>Theory:</b> Study Area climate characterization and variability at different space and temporal scales of analysis (approx. 120 min)</p> <p><b>Practice:</b> Handling climatic data from different sources and different formats. Part I (approx. 60 min)</p>
<b>30-Oct</b>	<b>Practice:</b> Handling climatic data from different sources and different formats. Part II (approx. 60 min)
	<b>Practice:</b> Spatial dynamics of climate variability and extreme climate events (approx. 120 to 180 min)
<b>31-Oct</b>	<b>Practice:</b> Temporal dynamics of climate variability and extreme climate events (approx. 120 to 180 min)
	<b>Practice:</b> Evaluating potential teleconnections (SST and Oceanic indices). Part I (approx. 60 min)
<b>1-Nov</b>	<b>Practice:</b> Evaluating potential teleconnections (SST and Oceanic indices). Part II (approx. 60 min)
	<b>Practice:</b> Round-up exercises and Layout and map representation (approx. 120 to 180 min)

**COURSE II:**
**GIS methodologies for studying land use and cover change in savanna systems**

<b>5-Nov</b>	<p><b>Theory:</b> Basic concepts on Land Use and Land Cover Change (LULCC) (approx. 45 min)</p> <p><b>Theory:</b> Basic concepts on GIS and Remote Sensing (approx. 45 min)</p> <p><b>Practice:</b> Short exercises with Sensors of different origin and characteristics: Georeferenciation, Band combination, Map algebra (approx. 60 min)</p> <p><b>Practice:</b> Hydrologic and Morphometric determination of watersheds. Part I (approx. 90 min)</p>
<b>6-Nov</b>	<p><b>Practice:</b> Hydrologic and Morphometric determination of watersheds. Part II (approx. 90 min)</p> <p><b>Practice:</b> Flooding dynamics and mapping at a catchment level (seasonal and inter-year). Part I (approx. 90 min)</p>
<b>8-Nov</b>	<p><b>Practice:</b> Flooding dynamics and mapping at a catchment level (seasonal and inter-year). Part II (approx. 60 min)</p> <p><b>Practice:</b> Fire dynamics and mapping at a catchment level (the application of different sensors) (approx. 120 to 180 min)</p>
<b>9-Nov</b>	<p><b>Practice:</b> Land use change and cover change estimation and mapping at a catchment level (approx. 60 min)</p>
	<p><b>Practice:</b> Round-up exercises and Layout and map representation (approx. 120 to 180 min)</p>