MODULE	TYPE	DURATION (hrs.)	CONTENTS
Introduction and background on frequency analysis	Lecture	0,75	* Event frequency, risk, and reliability in hydrologic design * Types of data series used in frequency analysis * Frequency analysis: Site-specific versus Regional * Empirical frequency analysis * Statistical estimation methods * Probability distributions * Goodness-of-fit measures
Statistical Modeling of Extreme Events for Stationary Conditions (Block Maxima and Peaks Over Threshold)	Lecture	0,75	* A brief review of stationary approaches
L-moments approach to regional frequency analysis	Lecture	1,00	* Calculation of sample L-moments estimators * Identification of acceptably homogeneous group(s) of sites * Distribution selection * Assessment of the accuracy of estimated quantiles * Assumptions
Practical examples to illustrate the L-moments approach, step by step, using R	Practice	2,00	* Calculation of sample L-moments estimators * Identification of acceptably homogeneous group(s) of sites * Distribution selection * Assessment of accuracy of estimated quantiles
LUNCH BREAK	---	1,00	---
Extreme Hydrologic Events - Causes of Changes (Nonstationarity)	Lecture	0,75	* Introduction, Global examples of change, types of variability and change in hydrologic data, brief introduction to R-software for extreme value modeling
Detection of Changes - Parametric and Nonparametric Methods	Lecture	0,75	* Continuous and Step Changes, Hypothesis Testing, Examples

Statistical Modeling of Extreme Events for Nonstationary Conditions	Lecture	1,00	* Modeling nonstationary hydrologic time series. Model Selection using the Likelihood Ratio Test, introduction to uncertainty quantification
Return Period and Risk for Nonstationary Hydrologic Events	Lecture	1,00	* Extension of stationary approaches for risk and return period, changing frequency of events, examples
Hydrologic Design under Nonstationarity	Lecture	1,00	* Hydrologic Design Concepts under nonstationarity, dealing with uncertainties in projections, brief introduction to application in rainfall under future conditions using climate model output, examples
	Total =	10,00	hours