AIMS Cameroon <u>Provisional</u> Academic Agenda 2023-2024

Climate Science Courses	Fundamental SCience Courses	Data Science Courses

N°	Phase	Period	Type of activity	Course/Activity title	Lecturers	Affiliation
OR	Welcome & Orientation	August 21-25	Arrival			
			Orientation & Language Training	Orientation	AIMS Staff	AIMS Cameroon
				Intensive Language Training	Caroll Roselyne Zoula Evina & Mengue Evina Patrick	GBHS Limbe
			ICT	Introduction to Linux, Bash Scripting and Fortran		
			Latex training	Introduction to Latex		
SC1.1	Skills Phase	August 28 - September 16, 2023	Skills block 1	Introductory Programming with Python	Dr. Paul Taylor	National Institutes of Health, USA
SC1.2				Mathematical Problem Solving	Prof. Ferdinand Ngakeu	University of Douala, Cameroon
SC1.3				Entrepreneurship and Professional Development	Prof. Isidore Bikoko	University of Douala; Founder & Chief Executive Officer of Intellium Global Perspective, Cameroon
SC1.4		September 18 - 22	Reading Week 1	Refresher (Linear Algebra) / Refresher (ODE)		
SC2.1	Skills Phase	September 25 - October 14	Skills block 2	Computational Mathematics with SageMath	Dr. Daniel Tcheutia	AIMS-Cameroon
SC2.2				Introduction to Data preprocessing and Feature Engineering Techniques in Machine Learning	Dr. Daniel Tcheutia & Mr. Rockefeller	AIMS South Africa
SC2.3				Concepts in Physics and Physical Problem Solving	Dr. Etienne Wamba	Rheinland-Pfälzische Technische Universität (RPTU) Kaiserslautern-Landau, Germany
SC3.1		October 16 - November 04, 2023	Skills block 3	Introduction to Climate Science	Dr. Bamba Sylla	AIMS Rwanda
SC3.2				Introduction to Mathematical Modelling	Dr. Woldegebriel Assefa Woldegerima	York University, Canada
SC3.3				Introduction to Quantum Mechanics	Dr. Collins Akosa	Waseda University, Tokyo, Japan

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SC1.4b		November 06 - 11	Reading Week 2	Introduction to R for Data Analysis / Programming Forum		
RC1.1	Review Phase	November 13 - December 02, 2023	Review Block 1	Statistical Inference	Prof. Ziad Taib	Atlas Biostat, Sweden
RC1.2				Atmospheric Physics (including Thermodynamics)	Dr. Komkoua Mbienda Armand Joel	University of Dschang, Cameroon
RC1.3				Quantum Computing	Prof. Wolfgang Scherer	UK
RC1.4				Optimization and Numerical Methods	Dr. Aurelle Tchagna Kouanou	University of Buea, Cameroon
RC1.5				Probability Theory	Prof. Patrice Takam Soh	University of Yaounde 1, Cameroon
RC2.1		December 04 - 22, 2023	Review Block 2	Bayesian Statistical Inference	Prof. Julia Mortera	Universita degli Studi Roma Tre, Italy
RC2.2				Climate Dynamics/Dynamical Meteorology	Dr. Pascal MOUDI IGRI	ECCAS Climate Application and Prediction Centre (CAPC-AC), Cameroon
RC2.3				Functional Analysis	Prof. Eddy Armand Kwessy	Trinity University, USA
RC2.4				RegCM Model for Meteorollogy and Climatology Sudies	Dr. Komkoua Mbienda Armand Joel and Mr. Graziano Giuliano	University of Dschang, Cameroon & ICTP, Italy
RC2.5				Approximation and Interpolation	Prof. Walter Van Assche	University of Leuven, Belgium
RC2.6				Supervised Learning Methods and Algorithms	Dr. Olawale Awe	Global Humanistic University, Curacao, The Netherlands
		December 23 - January 05	Christmas Holidays			
RC3.1				Data Analysis with Application to Health	Prof. Jane L. Hutton	University of Warwick, UK
RC3.2				Climate Modelling	Dr. Bamba Sylla & Dr. Moustapha Tall	AIMS Rwanda

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RC3.3	Review Phase	January 08 - 27, 2024	Review Block 3	Graphs, Matroids, and Designs	Prof. Nancy Ann Neudauer	Pacific University, USA
RC3.4				Complex Networks (using numerical analysis and analytic linear algebra)	Prof. Philip Anthony Knight	Strathclyde University, Glasgow, UK
RC3.5				Big Data Analytics with Python	Dr. Imran Khan	Sher-e-Kashmir University of Agricultural Sciences and Technology (SKUAST)-Kashmir, Jammu and Kashmir, India
		January 29 - February 17, 2024	Review Block 4			
RC4.1				High Dimension Data Analysis	Prof. Paulo Jorge Canas Rodrigues	Federal University of Bahia , Brazil
RC4.2				Stochastic Processes	Dr. Simon Harden	University College London, UK
RC4.3				Machine Learning in Particle Physics	Prof. Claire David	AIMS South Africa
RC4.4				Cryptography and Cybersecurity	Prof. Serge Roland Vaudenay and Dr. Boris Takou Fouotsa	École Polytechnique Fédérale de Lausanne, Switzerland
		February 19 - 24	Reading Week 3	Entrepreneurship and Professional Development / Programming Forum		
RC5.1	Review Phase	February 26 - March 16, 2024	Review Block 5	Statistical Methods for Climate Science	Dr. Romaric Odoulami	University of Cape Town, South Africa
RC5.2				Modelling Climate Impacts on Solar, Hydrologic and Wind Energy	Dr. Windmanagda Sawadogo	University of Augsburg, Germany
RC5.3				Deep Learning Methods and Algorithms	Dr. Paulin Melatagia	University of Yaoundé 1, Cameroon
RC5.4				Natural Language Processing	Prof. Elvis Ndah	University of Ghent, Belgium
RC5.5				Dynamical Systems	Prof. Abbas Casim	Michigan State University, USA
RC5.6				Stochastic Optimal Control and Financial Mathematics	Prof. Ralf Wunderlich	BTU Cottbus, Germany

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RC6.1		March 18 - April 06, 2024	Review Block 6	Unsupervised Machine Learning	Dr. Olushina Olawale Awe	Global Humanistic University, Curacao, The Netherlands
RC6.2				Mathematical Modeling with Python	Dr. Nourridine Siewe	Rochester Institute of Technology, USA
RC6.3				Electrodynamics	Dr. Obinna Cosmas Abah	Newcastle University, UK
		April 08 - May 17	Essay Phase	Working on Essay Topics (6 weeks)	Supervisors	
		May 20 - 31	Preparation for Oral Defense	Additional Reading and Rehearsals		
		June 03 - June 15	Defenses	Oral Presentations		
		June 17 - June 22	Preparation for Graduation	Preparation for Graduation + Volunteering		
		Jun 25, 26	Graduation Day			
	Departures	June 26 - June 30				