C2QA Foundations of Quantum Information Science (QIS101) - Syllabus

Week #1				
MON	06/06/22	10:00 AM	12:00 PM	Session 01 - Introducing Quantum Computing
	, ,	1:00 PM	3:00 PM	Session 02 - Installing Courseware
		4:00 PM	6:00 PM	Session 02 - Installing Courseware
TUE	06/07/22	10:00 AM	12:00 PM	TA Time
		1:00 PM	3:00 PM	Session 03 - Introducing Python
		4:00 PM	6:00 PM	Session 03 - Introducing Python
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WED	06/08/22	10:00 AM	12:00 PM	Session 03 - Introducing Python
		1:00 PM	3:00 PM	Session 04 - Experimental Mathematics
		4:00 PM	6:00 PM	Session 04 - Experimental Mathematics
THU	06/09/22	10:00 AM	12:00 PM	Session 04 - Experimental Mathematics
		1:00 PM	3:00 PM	Session 05 - Algorithmic Efficiency
		4:00 PM	6:00 PM	Session 05 - Algorithmic Efficiency
FRI	06/10/22	10:00 AM	12:00 PM	Session 05 - Algorithmic Efficiency
		1:00 PM	3:00 PM	Facilities Tour - NSLS2
		4:00 PM	6:00 PM	TA Time
Week #2				
MON	06/13/22	10:00 AM	12:00 PM	Session 06 - Data Visualization
		1:00 PM	3:00 PM	Session 06 - Data Visualization
		4:00 PM	6:00 PM	Session 07 - Information Theory

Week #2				
MON	06/13/22	10:00 AM	12:00 PM	Session 06 - Data Visualization
		1:00 PM	3:00 PM	Session 06 - Data Visualization
		4:00 PM	6:00 PM	Session 07 - Information Theory
TUE	06/14/22	10:00 AM	12:00 PM	Session 07 - Information Theory
		1:00 PM	3:00 PM	Session 08 - Early Quantum Mechanics
		4:00 PM	6:00 PM	Session 08 - Early Quantum Mechanics
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WED	06/15/22	10:00 AM	12:00 PM	TA Time
		1:00 PM	3:00 PM	Guest Lecturer - Samuel Stein, Research Associate,
				Pacific Northwest Lab (Software)
		4:00 PM	6:00 PM	The state of the s
				Pacific Northwest Lab (Software)
THU	06/16/22		6:00 PM	Pacific Northwest Lab (Software)
THU	06/16/22	4:00 PM	6:00 PM	Pacific Northwest Lab (Software) Session 09 - Probability and Statistics
THU	06/16/22	4:00 PM 10:00 AM	6:00 PM 12:00 PM	Pacific Northwest Lab (Software) Session 09 - Probability and Statistics Session 09 - Probability and Statistics
THU	06/16/22	4:00 PM 10:00 AM 1:00 PM	6:00 PM 12:00 PM 3:00 PM	Pacific Northwest Lab (Software) Session 09 - Probability and Statistics Session 09 - Probability and Statistics Session 09 - Probability and Statistics
THU	06/16/22	4:00 PM 10:00 AM 1:00 PM	6:00 PM 12:00 PM 3:00 PM 6:00 PM	Pacific Northwest Lab (Software) Session 09 - Probability and Statistics Session 09 - Probability and Statistics Session 09 - Probability and Statistics
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		4:00 PM 10:00 AM 1:00 PM 4:00 PM	6:00 PM 12:00 PM 3:00 PM 6:00 PM	Pacific Northwest Lab (Software) Session 09 - Probability and Statistics Session 09 - Probability and Statistics Session 09 - Probability and Statistics Session 10 - Numerical Analysis Session 10 - Numerical Analysis

Week #3

MON	06/20/22	No Cla	ccoc	Juneteenth Federal Holiday
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TUE	06/21/22	10:00 AM	12.00 044	Session 11 - Complex Algebra
105	00/21/22	1:00 AM	3:00 PM	
1			 	Session 11 - Complex Algebra
		4:00 PM	6:00 PM	Session 12 - Classical Wave Equations
14/55	06/22/22	10.00 444	12:00 511	Socian 12 Classical Mayor Franchis
WED	06/22/22	10:00 AM		Session 12 - Classical Wave Equations
		1:00 PM	3:00 PM	Guest Lecturer - Christie Chiu, Postdoc, Princeton
		4,00.55.5	C-00 51 1	University (Materials)
		4:00 PM	6:00 PM	TA Time
T 1	00/22/22	10.00 414	12:00 55 6	Cossion 12 Farming Ameliania
THU	06/23/22	10:00 AM		Session 13 - Fourier Analysis
		1:00 PM	3:00 PM	Session 13 - Fourier Analysis
		4:00 PM	6:00 PM	Session 14 - Linear Algebra
	00/01/2	40.00	142.00	Icanian 44 - Proceeding
FRI	06/24/22	10:00 AM		Session 14 - Linear Algebra
		1:00 PM	3:00 PM	Facilities Tour - CFN
		4:00 PM	6:00 PM	TA Time
Week #4	00/0= 1-	40.05.11	40.00	In the second se
MON	06/27/22	10:00 AM	 	Session 14 - Linear Algebra
		1:00 PM	3:00 PM	Session 14 - Linear Algebra
		4:00 PM	6:00 PM	Session 15 - Vector Algebra
	00/5=1	40.55	40.00	To
TUE	06/28/22	10:00 AM		Session 15 - Vector Algebra
		1:00 PM	3:00 PM	Session 16 - Scientific Computing
		4:00 PM	6:00 PM	Session 16 - Scientific Computing
		l	l.c	
		10:00 AM	12:00 PM	Guest Lecturer - Michael Hatridge, Assistant Professor
				of Physics, University of Pennsylvania (Devices)
WED	06/29/22			
		1:00 PM	3:00 PM	Session 16 - Scientific Computing
		4:00 PM	6:00 PM	TA Time
THU	06/30/22	10:00 AM	 	, and the second
		1:00 PM	3:00 PM	Session 17 - Simulation and Modelling
		4:00 PM	6:00 PM	Session 18 - Differential Equations
FRI	07/01/22	10:00 AM	12:00 PM	Session 18 - Differential Equations
		1:00 PM	3:00 PM	Session 18 - Differential Equations
		4:00 PM	6:00 PM	TA Time

Week #5

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MON	07/04/22	No Cla	sses	July 4th Federal Holiday
TUE	07/05/22	10:00 AM	12:00 PM	Session 19 - Dynamical Systems
		1:00 PM	3:00 PM	Session 19 - Dynamical Systems
		4:00 PM	6:00 PM	Session 20 - Monte Carlo Methods
WED	07/06/22	10:00 AM	12:00 PM	Session 20 - Monte Carlo Methods
		1:00 PM	3:00 PM	Session 20 - Monte Carlo Methods
		4:00 PM	6:00 PM	TA Time
THU	07/07/22	10:00 AM	12:00 PM	Session 21 - Digital Circuits
		1:00 PM	3:00 PM	Session 21 - Digital Circuits
		4:00 PM	6:00 PM	Session 21 - Digital Circuits
FRI	07/08/22	10:00 AM	12:00 PM	Session 22 - Quantum Mechanics
		1:00 PM	3:00 PM	Facilities Tour - RHIC
		4:00 PM	6:00 PM	TA Time
/eek #6	07/11/22	10.00 414	12:00 BM	Socian 22 Quantum Circuita
/eek #6				
/eek #6 MON	07/11/22	10:00 AM		Session 23 - Quantum Circuits
	07/11/22	1:00 PM	3:00 PM	Session 23 - Quantum Circuits
	07/11/22			
MON		1:00 PM 4:00 PM	3:00 PM 6:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits
	07/11/22	1:00 PM 4:00 PM 10:00 AM	3:00 PM 6:00 PM 12:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time
MON		1:00 PM 4:00 PM 10:00 AM 1:00 PM	3:00 PM 6:00 PM 12:00 PM 3:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time Session 23 - Quantum Circuits
MON		1:00 PM 4:00 PM 10:00 AM	3:00 PM 6:00 PM 12:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time
TUE	07/12/22	1:00 PM 4:00 PM 10:00 AM 1:00 PM 4:00 PM	3:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time Session 23 - Quantum Circuits Session 24 - Quantum Algorithms
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TUE	07/12/22	1:00 PM 4:00 PM 10:00 AM 1:00 PM 4:00 PM 10:00 AM 1:00 PM	3:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM 12:00 PM 3:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time Session 23 - Quantum Circuits Session 24 - Quantum Algorithms Session 24 - Quantum Algorithms
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TUE	07/12/22	1:00 PM 4:00 PM 10:00 AM 1:00 PM 4:00 PM 1:00 PM 4:00 PM	3:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM 12:00 PM 6:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time Session 23 - Quantum Circuits Session 24 - Quantum Algorithms Session 24 - Quantum Algorithms Guest Lecturer - Baptist Royer, Postdoc, Yale University (Software) Session 24 - Quantum Algorithms
TUE	07/12/22	1:00 PM 4:00 PM 10:00 AM 1:00 PM 4:00 PM 1:00 PM 4:00 PM 1:00 PM	3:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM 12:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time Session 23 - Quantum Circuits Session 24 - Quantum Algorithms Session 24 - Quantum Algorithms Guest Lecturer - Baptist Royer, Postdoc, Yale University (Software) Session 24 - Quantum Algorithms TA Time Group Presentations (Practice)
TUE WED	07/12/22	1:00 PM 4:00 PM 10:00 AM 1:00 PM 4:00 PM 1:00 PM 4:00 PM 1:00 PM 1:00 PM 4:00 PM	3:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM 12:00 PM 6:00 PM 12:00 PM 3:00 PM 6:00 PM	Session 23 - Quantum Circuits Session 23 - Quantum Circuits TA Time Session 23 - Quantum Circuits Session 24 - Quantum Algorithms Session 24 - Quantum Algorithms Guest Lecturer - Baptist Royer, Postdoc, Yale University (Software) Session 24 - Quantum Algorithms TA Time Group Presentations (Practice) Group Presentations (Practice)