## 2009 World Nuclear University Summer Institute Schedule Overview As of 9 August 2009

<u>Unless otherwise informed</u>, weekday breakfasts will be served from 7:00 to 7:45 am. On Saturday, breakfast is served from 8:00 to 9:00 am; on Sunday from 9:00 to 9:30 am. Lunches will be served from 12:30 to 13:15 on weekdays. You are on your own for dinner every evening. On weekends you are also on your own for lunch. These meals can be paid for using your per diem allotment.

Faculty Presentation		Invited Leader Presentation Group Activity	For Mentors Only Other
Emi 2 I.1	All dom	Mantana aminal	
Fri 3 Jul Sat 4 Jul	All day	Mentors arrival	
Sat 4 Jul	All day	Fellows arrival and registration	WNU & College staff
	9:00 - 12:00	Mentors registration and orientation	Mentors & coordinators
C 5 I 1	$\frac{12:30-05:00}{00,00,00,00}$	Mentors planning meeting (including lunch)	Mentors & coordinators
Sun 5 Jul	09:00 - 09:30	Welcome from coordinators, mentors, WNU staff	SI coordinators, mentors
	09:30 - 10:15	Overview of SI Concept and 2009 Program	E. and D. Klevans (ex. Penn State U.)
	10:30 - 12:00 12:20 - 15:20	Fellows self-introductions – Part 1	Fellows
	13:30 - 15:30	Fellows self-introductions – Part 2	Fellows
	15:30 - 16:00	Announcements and Group Assignments Getting Acquainted: Walking tour of Oxford or	A. Waltars and Klevanses Fellows and mentors
	16:00 - 18:00	<b>. .</b>	renows and mentors
		other activities with working group A members	
March	00 15 00 00	Week 1: Global Setting	
Mon 6 Jul	08:15 - 09:00	WNU and the Summer Institute	J. Ritch (WNU)
	09:00 - 09:30	Greetings from Oxford	Lord Lt. T. Stevenson
	00.45 11.00	and Christ Church World Energy Demond & Sumply The Situation	Very Rev. Dr. C. Lewis, Dean of CC
	09:45 - 11:00	World Energy Demand & Supply - The Situation	R. Schock (WEC)
	11:15 - 12:30	World Energy Demand & Supply-Looking Forward	R. Schock (WEC)
	12.45 17.45		Working Crosses A. 1 10
	13:45 - 17:45	<b>Team Project Presentations and Judging</b> Welcome Reception (on Steamboat)	Working Groups A: 1-10 All
Tue 7 Jul	<u>19:00 - 22:00</u> 08:00 - 09:15	Climate Change: Scientific basis and impact	
Tue / Jui			J. Cobb (WNA) J. Cobb (WNA)
	09:30 - 10:30 10:45 - 11:45	Climate Change: Adaptation and vulnerability Global water issues and nuclear desalination.	J. Cobb (WNA) T. Konishi (ex-Hitachi)
	10:45 - 11:45 11:45 - 12:30	Plenary Q and A	Morning speakers
	13:45 - 17:30	Self Presentations in Working Group	Working Groups A: 1-10
	17:45 - 19:00	Mentors Meeting	Mentors and Coordinators
Wed 8 Jul	08:00 - 09:30	Mitigation of climate change	J. Cobb (WNA)
wea o jui	09:45 - 11:00	Renewable Energy Sources and Policies	D. Elliott (OU - UK)
	11:15 - 12:30	New Technologies: Hydrogen	C. Forsberg (MIT)
	13:45 - 17:15	Self Presentations in Working Group	Working Groups A: 1-10
	17:30 - 18:30	Invited Leader Presentation - An	P. Moore (Greenspirit Strategies)
	17.50 10.50	environmentalist's case for nuclear power	· · · · · · · · · · · · · · · · · · ·
	18:30 - 20:00	Informal social hour	All – Exhibition Area
Thu 9 Jul	08:00 - 09:30	Global Survey of Nuclear Energy Politics	B. Barre (Areva)
1110 / 541	09:45 - 11:00	Global Survey of Nuclear Energy Politics (cont.)	B. Barre (Areva)
	11:15 - 12:15	Invited Leader Presentation	L. Echavarri (OECD/NEA)
	13:30 - 17:30	Nuclear Energy Politics in Fellows Own Country	Working Groups A: 1-10
	17:45 – 19:00	Mentors Meeting	Mentors and Coordinators
Fri 10 Jul	08:00 - 09:30	Overview of Non-power applications of nuclear	A. Waltar (ex-PNNL)
		tech.	()
	09:45 - 11:00	Medical Applications of Nuclear Sciences	R. Chhem (IAEA)
	11:15 - 12:30	Leadership: An Introduction	S. Berg (ex-INPO)
	14:00 - 15:00	Leadership: Beliefs and Values	S. Berg
	15:30 - 17:00	Leadership: A Call to Service	S. Berg
Sat 11 Jul	10:00 - 12:00	Recreational opportunities - Punting & Picnic	All
Sun 12 Jul		Free time	All
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		Week 2: Nuclear Industry	
Mon 13 Jul	08:00 - 09:30	World Nuclear Fuel Market	S. Kidd (WNA)
	09:45 - 11:00	Uranium Mining and Operations	J. Slezak (IAEA)
	11:15 - 12:15	Invited Leader Presentation	S. Massart (EDF)
	13:30 - 16:15	<b>Review of morning lectures and plenary preparation</b>	Working Groups A: 1-10
	16:30 - 17:30	Plenary session with morning presenters	All
	17:30 - 19:00	Mentors Meeting	Mentors and Coordinators
Tue 14 Jul	08:00 - 09:30	Next generation nuclear reactors	F. Carre (CEA)
	09:45 - 11:00	Next generation nuclear reactors (cont.)	F. Carre (CEA)
	11:15 - 12:30	<b>Review of morning lectures and plenary preparation</b>	Working Groups A: 1-10
	13:30 - 14:45	Plenary session with Carre	All
	15:00 - 16:15	Choosing a Gen III concept	S. James (NIA - UK)
Wed 15 Jul	08:00 - 09:30	Nuclear Transport	M. Hartenstein(TN International
	09:45 - 10:30	<b>Review of morning lecture and plenary preparation</b>	Working Groups A: 1-10
	10:45 - 11:15	Plenary session with morning presenter	All
	11:15 - 12:30	Decommissioning	<b>D. Bradbury (SME Bradtec)</b>
	13:45 - 14:30	<b>Review of morning lecture and plenary preparation</b>	Working Groups A: 1-10
	14:45 - 15:30	Plenary session with morning presenter	All
	16:00 - 17:00	Invited Leader Presentation	A.White (WNA Chair; Trilliant
			Inc)
	17:00 - 18:30	Informal Social Hour	All - Exhibition Area
Thu 16 Jul	08:00 - 09:30	Deep geological nuclear waste disposal	C. McCombie (Arius)
	09:45 - 10:30	Review of morning lecture and plenary preparation	Working Groups A: 1-10
	10:45 - 11:15	Plenary session with morning presenter	All
	11:15 - 12:30	Societal factors in waste management	T. Issacs (LLNL)
	13:45 - 14:45	Review of morning lecture and plenary preparation	Working Groups A: 1-10
	15:00 - 16:00	Plenary session with morning presenter	All
	16:00 - 17:15	The TMI and Chermobyl Accidents	E. Klevans
	17:30 - 19:00	Mentors Meeting	Mentors and Coordinators
Fri 17 Jul	08:00 - 9:15	Waste Management: Back end options	P. Bernard (ex-CEA; Counselor,
	09:15 - 10:15	Review of morning lecture and plenary preparation	Fr. Embassy,Russia) Working Groups A: 1-10
	10:15 – 11:15	Plenary session with morning presenters	All
	10.15 - 11.15 11:15 - 12:30	Advanced Nuclear Fuel Cycle	M. Salvatores (CEA)
	11.13 - 12.30 13:45 - 14:30	Review of morning lecture and plenary preparation	Working Groups A: 1-10
	14:45 - 15:45	Plenary session with morning presenters	All
	15:45 - 17:15	Orientation to the French Nuclear Tour	<b>F.</b> Perchet (WNU),
	10,70 - 17,10	Stendard to the French Nuclear Tour	V. Ryan-Taix (WNA)

Sat 18 Jul	Free day	
Sun 19 Jul	Start Technical Tour (See separate schedule)	V. Ryan-Taix

Week 3: Tour of French Nuclear Facilities (See separate schedule)

Week 4: Public Communication – Nuclear Safety – Nuclear Law			
Mon 27 Jul	08:00 - 12:00	Public Communications: Building Public Support	A. Bisconti ( Bisconti Research), S. Peterson (NEI)
	12:00 - 13:30	Fellow self-introductions in new working groups	Lunch – Working Groups B: 1-10
	13:30 - 17:30	Case study preparation	Working Groups B: 1-10
	17:30 - 19:00	Mentors Meeting	Mentors and Coordinators
Tue 28 Jul	08:00 - 12:15	Case Study Presentations	Bisconti, Peterson, Fellows
	13:30 - 15:30	Case Study Presentations (cont.)	Bisconti, Peterson, Fellows
	15:30 - 16:00	<b>Review and Summary of Case Study Experience</b>	Bisconti, Peterson
	16:15 - 17:30	Initial meeting of Forum Issues Group	Working Groups FI: 1-10
Wed 29 Jul	08:00 - 09:30	IAEA Safety Standards and Their Applications	M. El-Shanawany (IAEA)
	09:45 - 11:00	The Role of the Regulator in the Licensing and	J. Merrifield (Shaw Group)
		Operation of Nuclear Facilities	-
	11:15 - 12:15	Invited Leader Presentation	G. Grandey (Cameco Corp)
	13:30 - 14:30	Invited Leader Presentation	M. Weightman (Chief Nuclear
			Inspector, U.K.)
	14:45 - 16:15	Review of morning lectures	Working Groups B: 1-10
	16:30 - 17:30	Plenary session with today's speakers	All
	18:00 - 20:00	Croquet Competition in Master's Garden CC	All
Thu 30 Jul	08:00 - 09:30	Comparative Risk Assessment	R. Budnitz (LBNL)
	09:45 - 11:00	Nuclear Safety: Feedback on operating experience	P. Wakefield (WANO)
	11:15 - 12:30	Safety Culture	G. Hutcherson (INPO)
	13:45 - 16:15	Preparation of case study	Working Groups B: 1-10
	16:30 - 17:30	Plenary session: case study review and summary	All
	17:30 - 19:00	Mentors Meeting	Mentors and Coordinators
Fri 31 Jul	08:00 - 09:00	Invited Leader Presentation	L. Stricker (WANO)
	9:15 - 10:30	Nuclear Law: Environmental and Liability Issues	J. Schwartz (OECD/NEA)
	10:45 - 11:45	Nuclear Law: Safety and Security	W. Tonhauser (IAEA)
	11:45 - 12:30	Plenary session on Nuclear Law	Schwartz and Tonhauser
	13:45 - 17:45	Forum Issues Preparation	Working Groups FI: 1-10
Sat 1 Aug		Free time	All
Sun 2 Aug		Free time	All

Week 5: Nuclear Economics – Radiation Protection – Non-proliferation and Safeguards			
Mon 3 Aug	08:00 - 09:30	Economic Background to Nuclear Power	A. Ham (ex- UK NIA)
	09:45 - 11:00	Structuring Nuclear Projects for Success	S. Kidd (WNA)
	11:15 - 12:30	Case Studies in Strategic Energy Investment	A. Ham & S. Kidd
	13:45 - 16:15	Preparation of Case Studies	Working Groups B: 1-10
	16:30 - 17:30	Plenary session: Case Studies Presentations	All
	17:30 - 18:30	Invited Leader Presentation: Nuclear Power Safety	J. Ellis (INPO)
Tue 4 Aug	08:00 - 09:30	Setting up Nuclear Programs in the Arabic Peninsula	I. Al-Qaradawi (Qatar U.)
C	09:45 - 11:00	Radiation Protection: Epistomology of Radiation Effects	A. Gonzalez (ICRP)
	11:15 - 12:30	International Radiation Protection Paradigms	A. Gonzalez
	13:45 - 16:15	<b>Review of morning lectures and plenary preparation</b>	Working Groups B: 1-10
	16:30 - 17:30	Plenary session with morning presenters	All
	17:30 - 19:00	Mentors Meeting	<b>Mentors and Coordinators</b>
	00 00 00 70		
Wed 5 Aug	08:00 - 09:30	Non-proliferation and Safeguards: Legal Framework	L. Rockwood (IAEA)
	09:45 - 11:00	Export Controls	R. Goorevich (USDOE/NNSA
	11:15 - 12:30	Safeguards Implementation: Review of Hot Cases	B. Pellaud (ex-IAEA)
	13:45 - 16:15	Review of morning lectures and plenary preparation	Working Groups B: 1-10
	16:30 - 17:30	Plenary session with morning presenters	All
Thu 6 Aug	08:00 - 09:30	Non-proliferation Analysis of the Fuel Cycle	<b>B. Pellaud (ex-IAEA)</b>
-	09:45 - 11:00	Safeguards Implementation: Concepts & Practices	K. Chitumbo (ex-IAEA)
	11:15 - 12:30	The Management of Nuclear Security	R. Howsley (WINS)
	13:45 - 16:00	<b>Review of morning lectures and plenary preparation</b>	Working Groups B: 1-10
	16:15 - 17:15	Plenary session with morning presenters	All
	17:15 - 18:15	Invited Leader Presentation	G. Frank (IAEC)
	18:15 - 20:00	Informal social hour	All - Exhibition Area
	9.05 10.45	E	FIC. FL 1 10
Fri 7 Aug	8:05 - 10:45	Forum Issues Preparation	FIGs FI: 1-10
	11:00 - 12:15	Controlled Fusion Power	S. Cowley (UK AEA Culham)
	13:30 - 17:30	Forum Issues Preparation	FIGs FI: 5-10
	13:30 - 17:30	4 FI Working Groups tour fusion facilities	Culham Laboratory FI 1-4
	17:30 - 19:00	Mentors Meeting	Mentors and Coordinators
Sat 8 Aug	9:00 - 17:00	Recreational opportunities - Tour of Warwick Castle	All
Sun 9 Aug		Free time	All

Mon10Aug	08:00 - 09:30	Setting up Nuclear Programs: International Support	A.Omoto (IAEA)
	09:45 - 11:00	<b>Overview of Central European Nuclear Programs</b>	R. Skoda (Czech Tech U.)
	11:15 - 12:30	Knowledge Management	Y. Yanev (IAEA)
	13:45 - 17:30	Forum Issues Preparation	FIGs FI: 1-4, 8-10
	13:30 - 17:30	3 FI Working Groups tour fusion facilities	Culham Lab FI 5-7
	17:30 - 19:00	Mentors Meeting	<b>Mentors and Coordinators</b>
T 114	09.00 0.15	Transfer d.T. and an Decements (Con-	
Tue 11Aug	<b>08:00 - 9:15</b>	Invited Leader Presentation	M. Lawrence (UK NNL)
	9:30 - 10:00	Action Planning Overview	D. Klevans (ex Penn State U.)
	10:00 - 12:15	Individual and Group Action Planning	Fellows
	13:30 - 17:30	Forum Issues Preparation	FIGs FI: 1-7
	13:30 - 17:30	3 FI Working Groups tour fusion facilities	Culham Laboratory FI 8-10
Wed12Aug	08:00 - 12:15	Forum Issues Preparation	FIGs FI: 1-10
-	13:30 - 17:00	Forum Issues Preparation	FIGs FI: 1-10
	17:00 - 18:30	Mentors Meeting	<b>Mentors and Coordinators</b>
Thu 13Aug	08:00 - 12:15	Forum Issues Presentations	All
1110 157105	13:15 - 17:30	Forum Issues Presentations	All
<b>D</b> · 1 4 A			
Fri 14 Aug	08:00 - 09:00	Invited Leader Presentation	H. Blix (WMDC)
	09:00 - 09:45	Invited Leader Presentation	Z. Pate (ex-WANO)
	10:00 - 10:45	Invited Leader Presentation	J. Ritch (WNU/WNA)
	10:45 - 11:30	Round Table Discussion	Blix, Pate, and Ritch
	11:45 - 12:30	Assessment of Summer Institute	Fellows, Mentors,
	1 Q.		Coordinators
	Afternoon	Free time for Packing & Shipping	All
	18:30 - 23:00	Banquet and Celebration @ Rhodes House	All
Sat 15 Aug	7:00 - 10:00	Check out. Bon Voyage. Stay in touch.	All