

N03 Radiation & Radiological Protection

9th – 13th September 2019

Module lecturers: Gavin Smith (AGS), Kieran Flanagan (KTF), John Roberts - IAEA (JR)
Laboratory: Toby Wright (TW), Demonstrators: Sam Bennett, Nick Sosnin & Adhitya Sehkar
Case Studies: Paul Davies (PD)

Radiation users please note: Radioactive sources will be used in the laboratory

Timetable

Monday 9th September - J Bell Burnell Lecture Theatre

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|---------------|---------------------------------|
| 09:00 - 09:30 | Welcome and Introductions |
| 09:30 - 10:30 | Lecture (AGS-1) |
| 10:30 - 11:00 | Coffee break |
| 11:00 - 11:45 | Lecture (AGS-2) |
| 11:45 - 12:30 | Lecture (AGS-3) |
| 12:30 - 13:30 | Lunch |
| 13:30 - 14:20 | Lecture – (KTF-1) |
| 14:20 - 14:50 | Introduction to Laboratory (TW) |
| 14:50 - 15:40 | Lecture - (JR-1) |
| 15:40 - 16:10 | Coffee break |
| 16:10 - 17:00 | Lecture – (JR-2) |

Tuesday 10th September – Conference Rooms A&B

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|----------------|--|
| 09:00 - 09:50 | Lecture - (JR-3) |
| 09:50 - 10:40 | Lecture – (JR4) |
| | Coffee break |
| 11:00 - 13:00 | Group 1: Laboratory (with a break for lunch) Group 2: Tutorial; complete pre-course question sheet; Space Batteries briefing (TW) |
| 13:00 - 14:00 | Lunch |
| 14:00 - 15:00 | Lab & Tutorials (cont'd) |
| 15:00 - 15:10 | Coffee break |
| 15:10 - 18:10 | Group 1: Tutorial; complete pre-course question sheet; Space Batteries briefing (TW) Group 2: Laboratory |
| Before 6:10 pm | Hand in completed pre-course answer sheet to AGS or NTEC Office |

Wednesday 11th September – Conference Rooms A&B

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|---------------|--|
| 09:00 - 10:00 | Lecture (KTF-2) |
| 10:00 - 13:00 | Group 1: Laboratory Group 2: Presentations (Groups 2a, 2b)(AGS/PD); Space batteries exercise |
| Mid-morning | Coffee break |
| 13:00 - 14:00 | Lunch |
| 14:00 - 15:00 | Lecture by Rick Hallard (Formerly President of the Society of Radiological Protection) <i>Radiological protection in the nuclear industry</i> |
| 15:00 - 18:00 | Group 1: Presentations (Groups 1a, 1b)(AGS/PD); Space batteries exercise Group 2: Laboratory |
| Mid-afternoon | Coffee break |

Thursday 12th September – Conference Rooms A&B**(DL student residential day)**

- 09:00 – 11:30 Group 1: Laboratory
 Group 2: Space batteries exercise; IAEA short film
 Coffee break as required
- 11:30 – 12:30 Lecture by Zahid Riaz (Office of Nuclear Regulation)
 Radiation Shielding
- 12:30 – 13:30 Lunch
- 13:30 – 14:30 Lecture by Prof. Richard Wakeford:
 Scientific evidence for risks to health from radiation
- 14:30 – 15:00 Coffee break
- 15:00 – 17:30 Group 1: Space batteries exercise; IAEA short film
 Group 2: Laboratory

Friday 13th September – J Bell Burnell Lecture Theatre

- 09:00 - 10:00 Lecture (KTF-3)
- 10:00 - 10:45 Space batteries – discussion of results (TW)
- 10:45 - 11:00 Coffee break
- 11:00 - 12:00 Lecture (KTF-4)
- 12:00 - 12:30 Module Review (AGS/KTF/TW)

Case study allocation

Group 1a

Case Study Number

| | |
|-----------------|---|
| Anna Adams | 1 |
| Sophie Collier | 2 |
| Sarah Wild | 3 |
| Joseph Lanza | 4 |
| Arshad Mohammed | 5 |
| Dilek Kale | 6 |

Group 1b

| | |
|------------------|---|
| Yuzhang Wu | 1 |
| Eddie Pennington | 2 |
| Ben Liu | 3 |
| Lewis Mitchell | 4 |
| Liz Tongue | 5 |

Group 2a

| | |
|---------------------|---|
| Silvio Maggiore | 1 |
| George Burnett | 2 |
| Sharif Asif Rahman | 3 |
| Abigail de Carteret | 4 |
| Michael Bell | 5 |

Group 2b

| | |
|---------------|---|
| Ibrahim Fares | 1 |
| Beth Wisely | 2 |
| Lewis Cole | 3 |
| Zain Iqbal | 4 |
| James Martin | 5 |

DL Student Residential Day – Group 2

James Bamber
Adam Kelly