

### **Cranfield Forensic Institute**

**MSc Forensic Programme** 

18th March 2021

www.cranfield.ac.uk

# What we can offer you

#### State of the art facilities

#### Cranfield Campus

- £7.2 million investment into a centre of excellence within forensic science higher education:
  - State-of-the-art laboratories,
  - new equipment,
  - CSI facilities,
  - trained by active CSI's,
  - Taphonomy facility.

#### **Shrivenham Campus**

- Armoury,
- Experimental and Small arms ranges,
- Explosive range ERDA,
- additional Security Clearance Required.

#### **Other Facilities**

- COTEC,
- excavation sites worldwide.

## What we can offer you

#### **Research and teaching excellence**

Course content developed and taught by acknowledged experts who incorporate professional expertise with current knowledge gained through active participation within the forensic industry.



## **MS Forensic Programme**

#### **Course Outline**

#### MSc Themes

- Forensic Archaeology and Anthropology,
- o Forensic Ballistics,
- Forensic Explosive and Explosion Investigation,
- Forensic Investigation of Heritage Crime,
- o Forensic Investigation,
- Full/Part-time study options.

#### Course structure

- o Modules worth 10 credits,
- o Compulsory and Elective Modules,
- o One-week modules.

#### <u>Assessment</u>

Wide spectrum of assessment types
 e.g., presentations, expert witness
 statements, laboratory reports,
 examinations etc.

#### **Research Projects**

 20,000 words thesis or short journal paper.



### **Forensic Programme Structure**





### Forensic Archaeology and Anthropology MSc (FAA)

Course Director Dr Nicholas Márquez-Grant

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www.cranfield.ac.uk

## **Forensic Archaeology and Anthropology**

- Hands-on anthropological skeletal analysis.
- Virtual autopsy table,
- Human skeletal collections,
- Chartered Forensic Anthropologist,
- Mass grave simulation,
- Practical Archaeological excavation,
- Experienced Forensic Archaeologists.
- Some extra-curricular opportunities to work in practical, real-world environments:
  - Rat Island (MoD award, BBC Four),
  - inventory of human remains,
  - specialised MSc projects in the UK and abroad: Italy, Lithuania, Spain, etc.,
  - Spanish Civil War, WWI and WWII missions.



#### **Forensic Archaeology and Anthropology**

- Humanitarian: Identification of WWI / WWII casualties,
- Identification of British, German, French, Australian, New Zealand, USA Soldiers,
- Deployment to:
  - Belgium,
  - France,
  - Germany,
  - Italy,
  - Republic of Kiribati.
- Collaborate with:
  - Joint Casualty and Compassionate Centre (MOD),
  - Defense POW/MIA Accounting Agency,
  - History Flight, USA,
  - Flanders Heritage Agency, Belgium,
  - LGC (Forensic Science Provider).



#### Soldiers killed during WW1 named via DNA from relatives

3 22 March 2014 UK





### Forensic Ballistics MSc (FB)

Course Director Dr Kate Hewins

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www.cranfield.ac.uk

## **Forensic Ballistics**

#### Unique facilities include:

- Armoury,
- outdoor 25m range,
- indoor experimental range,
- ERDA/COTEC,
- Section 5 firearms License,
- handling firearms,
- live firing of weapons,
- state of the art technology.





## **Forensic Ballistics**

- Serial Number Restoration,
- Toolmark analysis,
- Ammunition
  Comparison,
- External ballistics,
- Internal ballistics,
- Terminal ballistics,
- Wound ballistics.







### Forensic Explosive and Explosions Investigation MSc (FEEI)

Course Directors Mike Harris, Stephen Johnson

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www.cranfield.ac.uk

## Forensic Explosive and Explosion Investigation

#### You will investigate:

- Explosives,
- Explosive Devices,
- Improvised Explosive Devices,
- Fire,
- Explosions,
- Post Blast Scenes,
- Effects on Structures.
- Explosive analysis,
- Analytical techniques,
- Intelligence management.



## Forensic Explosive and Explosion Investigation

- Visiting lecturers,
- External visits,
- Unique facilities:
  - Explosives Labs at Centre for Defence Chemistry,
  - UK MoD Technology School,
  - COTEC,
  - ERDA.





Forensic Investigation of Heritage Crime MSc (FIHC)

Course Director Professor Andrew Shortland

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www.cranfield.ac.uk

## **Forensic Investigation of Heritage Crime**

- UK Heritage Crime:
  - Theft,
  - metal detecting,
  - vandalism.
- International Heritage Destruction:
  - Illicit antiquities,
  - terrorist financing,
  - Heritage as a terrorist weapon.
- Historic England, Met Police, British Army, UNESCO, Blue Shield, etc.



#### **Forensic Investigation of Heritage Crime**

- Research:
  - High profile development of techniques,
    - materials,
    - dating.
- Teaching:
  - Internally: on MSc degrees.
  - Externally:
    - · Courtauld,
    - Oxford, Harvard, Northwestern, etc.
- Consultancy:
  - Ashmolean Museum, Oxford,
  - Sothebys, Christies, Bonhams,
  - Most major Western Museums.





### Forensic Investigation MSc (FI)

Course Director Professor Peter Zioupos

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# **Forensic Investigation**

- Bespoke,
- Highly handson/practical,
- Full forensic process:
  - Scene collection,
  - lab analysis and interpretation,
  - expert witness in court.
- Well-rounded graduate within the field of FS,
- One of our most popular themes.



# Why choose CFI?

- Operational staff,
- unique facilities,
- postgraduate University,
- research excellence and operational academics – research led teaching,
- state-of-the-art facilities,
- accredited by The Chartered Society of Forensic Sciences,
- CFI Excellence Scholarship 2021.





## If you have any further questions, please contact:

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