



## UNIVERSITÀ DEGLI STUDI DI MESSINA

Dipartimento di Scienze dell'Ambiente, della Sicurezza, del Territorio, degli Alimenti e della Salute  
(S.A.S.T.A.S.) "Carmelo Abbate"

### WORKSHOP AND FIELD TRAINING ON FORENSIC GEOLOGY



The "Workshop and field training on forensic geology" will be organized by the Department of Sciences of Environment, Security, Territory, Food, and Health (S.A.S.T.A.S.) "Carmelo Abbate") in collaboration with the SIR of Sciences and Technologies, the Master in Forensic Geology, and the Master in Forensic Sciences of the Messina University.

The workshop and training will be supported by the members of the IUGS (International Union of Geological Sciences), Initiative on Forensic Geology (IFG), on the 10th and 11th June 2015, in the laboratories of Dipartimento di Scienze dell'Ambiente, della Sicurezza, del Territorio, degli Alimenti e della Salute (SASTAS). The field training facility will be held within the SIR of Sciences and Technology of the Messina University, in Sicily

*The delegates attending the workshop will include Messina University students, police, carabinieri, and freelancers; one credit will be recognized for each day to students.*

*Due to logistical constraints the delegates attending and participating in the field training will be limited to nine students from Messina University, two police officers or carabinieri.*

### PROGRAMME

#### WORKSHOP

10<sup>th</sup> June 2015

10:00-10:45 – "Welcome address"

Ten. Colonnello Sergio Schiavone - Arma dei Carabinieri, Comandante del Reparto Investigazioni Scientifiche (RIS) Messina

Prof. Pietro Navarra - Chancellor of the University of Messina

Prof. Santi Fedele - Master Deputy

Prof. Concetta De Stefano – President of the SIR of Sciences and Technologies

Prof. Giacomo Dugo - Dean of the SASTAS Department

Prof. Silvio Sammartano - Dean of the Master in Forensic Sciences

Dr. Roberta Somma - Dean of the Master in Forensic Geology

10:45-11:00 – "Introduction to the workshop and field training"

Dr. Rosa Maria Di Maggio

*Forensic Geologist, Officer for Europe of IUGS IFG, Geoscienze Forensi Italia, Rome, Italy*

Viale Ferdinando Stagno d'Alcontres, 31 - 98166 Messina (Italy)

Mobile: +39 3393652672 - Tel. +39 090 6765180 - Fax. +39 090 6765436

email: [dugog@unime.it](mailto:dugog@unime.it)

Segreteria del Dip. SASTAS: Tel. +39 090 6765499 email: [mbarbagallo@unime.it](mailto:mbarbagallo@unime.it)



**UNIVERSITÀ DEGLI STUDI DI MESSINA**

Dipartimento di Scienze dell'Ambiente, della Sicurezza, del Territorio, degli Alimenti e della Salute  
(S.A.S.T.A.S.) "Carmelo Abbate"

11:00 -11:15 - COFFEE BREAK

11:15-11:45—"History and background of ground searches for burials and police applications"

Dr. Laurance Donnelly

*Forensic Geologist and Police Search Advisor, Chair of the IUGS Initiative on Forensic Geology.*

11:45-12:15—"Use of remote sensing and geophysics on search"

Prof. Alastair Ruffell

*Reader in Physical Geography, Officer for Training and Publication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

12:15-12:45—"Theory of Geographical Information Science (GIS) and analysis of geographical spatial data"

Dr. Jennifer McKinley

*Senior Lecturer in Physical Geography, Officer for Communication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

12:45-14:15 - LUNCH

14:15-14:45—"Methods of soil analysis and complementary approaches"

Prof. Lorna Dawson

*Principal Research Soil Scientist, Treasurer of the IUGS Initiative on Forensic Geology. The James Hutton Institute, Aberdeen, Scotland, UK*

14:45-15:15—"Design of search strategy, methodology and management"

Dr. Laurance Donnelly

*Forensic Geologist and Police Search Advisor, Chair of the IUGS Initiative on Forensic Geology.*

15:15-15:45—"Environmental geoforensics"

Prof. Alastair Ruffell

*Reader in Physical Geography, Officer for Training and Publication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

15:45-16:00 - COFFEE BREAK

16:00-16:30—"Use of remote sensing and GIS in environmental and criminal forensics"

Dr. Jennifer McKinley



## UNIVERSITÀ DEGLI STUDI DI MESSINA

Dipartimento di Scienze dell'Ambiente, della Sicurezza, del Territorio, degli Alimenti e della Salute  
(S.A.S.T.A.S.) "Carmelo Abbate"

*Senior Lecturer in Physical Geography, Officer for Communication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

16:30-17:00—"Soil analysis: case examples of investigation and evaluation"

Prof. Lorna Dawson

*Principal Research Soil Scientist, Treasurer of the IUGS Initiative on Forensic Geology. The James Hutton Institute, Aberdeen, Scotland, UK*

17:00-17:30—"Discussion and closing remarks"

Dr. Rosa Maria Di Maggio

*Forensic Geologist, Officer for Europe of IUGS IFG, Geoscienze Forensi Italia, Rome, Italy*

19:00-20:00 – MUSICAL ENTERTAINMENT

21:00 SOCIAL DINNER

### FIELD TRAINING

11<sup>th</sup> June 2015

9.30-12.30 –"Field training on ground search for burials: scene management, search strategy, methodologies and assets. This includes the use of a GPR survey and the deployment of a search for buried objects, a practical demonstration of a spatial approach to search using ArcGIS, and a talk about the biological markers on soil in aid of search"

Team:

Prof. Alastair Ruffell

*Reader in Physical Geography, Officer for Training and Publication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

Dr. Laurance Donnelly

*Forensic Geologist and Police Search Advisor, Chair of the IUGS Initiative on Forensic Geology.*

Dr. Jennifer McKinley

*Senior Lecturer in Physical Geography, Officer for Communication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

Prof. Lorna Dawson

*Principal Research Soil Scientist, Treasurer of the IUGS Initiative on Forensic Geology. The James Hutton Institute, Aberdeen, Scotland, UK*

Viale Ferdinando Stagno d'Alcontres, 31 - 98166 Messina (Italy)

Mobile: +39 3393652672 - Tel. +39 090 6765180 - Fax. +39 090 6765436

email:dugog@unime.it

Segreteria del Dip. SASTAS: Tel. +39 090 6765499email: mbarbagallo@unime.it



## UNIVERSITÀ DEGLI STUDI DI MESSINA

Dipartimento di Scienze dell'Ambiente, della Sicurezza, del Territorio, degli Alimenti e della Salute  
(S.A.S.T.A.S.) "Carmelo Abbate"

12:30-14:00 - LUNCH

14:00-16:30 –“Field training on evidence collecting: scene approach and sampling, soil sampling from a vehicle (wheels, footwell mats, pedals, etc.) and from other items (footwear, shovel, spade, etc)”

Team:

Prof. Lorna Dawson

*Principal Research Soil Scientist, Treasurer of the IUGS Initiative on Forensic Geology. The James Hutton Institute, Aberdeen, Scotland, UK*

Prof. Alastair Ruffell

*Reader in Physical Geography, Officer for Training and Publication of the IUGS Initiative on Forensic Geology. School of Geography, Archaeology and Palaeoecology, Queen's University, Belfast, Northern Ireland, UK*

Dr. Rosa Maria Di Maggio

*Forensic Geologist, Officer for Europe of IUGS IFG, Geoscienze Forensi Italia, Rome, Italy*



Viale Ferdinando Stagno d'Alcontres, 31 - 98166 Messina (Italy)

Mobile: +39 3393652672 - Tel. +39 090 6765180 - Fax. +39 090 6765436

email:dugog@unime.it

Segreteria del Dip. SASTAS: Tel. +39 090 6765499email: mbarbagallo@unime.it