Master's in Crime and Intelligence Analysis

EUROPEAN FORENSIC INSTITUTE

PgC - 30 ECTS	ECTS	Compulsory / Elective	Teaching	Assessment
Fundamentals of Crime and Intelligence Analysis	4	C	Online Classroom	Exam (90%), Class participation (10%)
Perspectives on Organised Crime	3	C	Online Classroom	Research Assignment (90%), Class participation (10%)
Data Analysis	4	C	Online Classroom	Research Assignment (100%)
Introduction to Financial Crime and Fraud	4	C	Online Classroom	Final Exam (50%), Individual Essay (20%), Individual Class Presentation (30%)
Knowledge of Criminal Behaviour	4	C	Online Classroom	Exam (65%), Application assignment (25%), Class participation (10%)
Spatial Analysis	5	C	Online Classroom	Exam (40%), Practical skills assessment (50%), Class participation (10%)
PgC Independent Research	6	C	Online Classroom	Dissertation Content (80%), Presentation (20%)

PgD - 30 ECTS	ECTS	Compulsory / Elective	Teaching	Assessment
Qualitative Analysis for Strategies in Crime Reduction and Prevention	4	C	Online Classroom	Exam (40%), Group project (60%), Class participation (10%)
Critical Thinking and Structured Analytic Techniques	5	C	Online Classroom	Exam (50%), Project (40%), Class participation (10%)
Statistical Analysis of Crime	4	C	Online Classroom	Exam (30%), Research (60%), Class participation (10%)
Advanced Web and Open-Source Intelligence	4	C	Online Classroom	Final Exam (50%), Individual Project (20%), Individual Class Presentation (30%)
Investigative Charting	4	C	Online Classroom	Exam (40%), Practical skills assessment (50%), Class participation (10%)
Temporal Analysis, Forecasting and Predictive Policing	3	C	Online Classroom	Exam (65%), Application assignment (25%), Class participation (10%)
PgD Independent Research	6	C	Online Classroomy	Dissertation Content (80%), Presentation (20%)

Master's - 30 ECTS	ECTS	Compulsory / Elective	Teaching	Assessment
Advanced Mobile Forensics and Cell Site Analysis	6	C	Online Classroom	Final exam (50%), Individual Project (20%), Individual Essay/Report (20%), Individual Class Presentation (10%)
Effective Dissemination of Analytical Product	2	C	Online Classroom	Presentation (50%), Assignment (25%), Class participation (25%)
Social Network Analysis	4	C	Online Classroom	Exam (40%), Practical skills assessment (50%) Class participation (10%)
Master's Independent Research and Final Dissertation	18	C	Online Classroom	Dissertation Content (80%), Presentation (20%)

1. **Official Qualification - Educational Programme/s:**
   Master's in Crime and Intelligence Analysis
2. **Higher Education Provider:** European Forensic Institute
3. **Accredited status:** Accredited by the Malta Further and Higher Education Authority (MFHEA) – Higher Education Institution, License n. 2018-014
4. **Level of qualification:** Level 7 MQF and Level 7 EQF
5. **Type of Course/s**

Qualifications:

a) Master's in Crime and Intelligence Analysis (90 ECTS)
b) Post Graduate Diploma in Crime and Intelligence Analysis (60 ECTS)
c) Post Graduate Certificate in Crime and Intelligence Analysis (30 ECTS)

Awards: in individual modules (more information available in Course Outline)

6. **Delivery Method:** Online.
7. **Hours of total learning:** 2250 hours (contact hours, self-study hours, supervised placement, practice hours and assessment hours). Please refer to Course Outline for details
8. **Total credits:** 90 ECTS
9. **Attendance:** Full-Time
10. **Programme Duration:** 18 months Full-Time
11. **Target audience & group**

Students: 19-30
Professionals: 31-65

12. **Language:** English [programme will run if we meet the minimum student number]
13. **Entry requirements:** Bachelor's Degree at MQF/EQF Level 6 or equivalent
14. **Learning Outcomes:**

a) Demonstrate a practical knowledge of the methods, tools, and techniques employed in analysis.
b) Are familiar with the skills underlying analytical methods, including report writing, statistics, mapping, network analysis and graphic techniques.
c) Understand the field of crime analysis: Understand the crime analysis and intelligence process, intelligence-led policing, the information sharing framework, and their roles in enhancing public safety. Explain the definition of crime and intelligence analysis, as well as the types, functions, and processes of crime analysts and crime analysis while implementing the analysis cycle. Explain the relationship between military intelligence, corporate intelligence, law enforcement, courts and analysis.
d) Assess the Integrity of Information: Understanding of the proper handling and collation of crime data and criminal intelligence information, including data management and information evaluation. Can determine the validity, the reliability, quality, and the credibility of verbal, written, numeric and graphic information encountered during the analysis process. Assess the quality of data analytics for both its practical and statistical significance.
e) Able to apply knowledge of Criminal Behaviour: Explain the behavioral patterns (Method of Operation) and motivations of serial criminals, street criminals, organized crime groups. Explain how various factors, such as socio-economic, cultural, psychological, environmental, and historical aspects influence criminal behaviour. Ability to define specific crime problems and conduct analysis to identify causal and contributory factors and make recommendations for crime reduction or prevention strategies.

f) Use of Descriptive and Inferential Statistics: Know how to summarize and analyse qualitative and quantitative data using calculations such as frequencies, percent change, cross-tabulations, probability theory, statistical inference, regression, and measures of variation and correlations. Know the appropriate levels of measurement used to support tactical, strategic, and administrative analysis. Know the difference between inferential and descriptive statistics and when each is appropriate to crime analysis
g) Demonstrate Temporal Analysis: Explain how to calculate and analyse the times of day, days of week, intervals, durations, tempos, and temporal cycles of crime in general and of criminal behaviour in short-term and long-term series, patterns, and trends. Use temporal analysis in making forecasts and predictions of future incidents regarding identified crime trends and series.
h) Conducting Demographic Analysis: Have the ability to use data from various sources and analyse and summarize demographic information such as population, housing data, age groups.
i) Conducting Spatial Analysis: Describe the basic principles and theoretical foundations behind geographic analysis. Create maps by using appropriate data sets etc. Using the software application Esri ArcGis Pro in a computer lab setting learn the most common spatial analytical techniques used in applied work of this kind.
j) Investigative/Intelligence Analysis Charting: Develop visual work products, such as link analysis and visual investigative analysis charts, which depict information to further investigations and intelligence efforts.
k) Reading/writing Comprehension: Provided with information on sources, including the internet, social media information sharing systems, networks, commercial and public databases, and other sources of information and their limitations. Discern, synthesize, and summarise useful and logical information from a report, peer-reviewed research/scientific literature or other written information source. Produce original research. Ability to write expository narratives. Explain information, draw conclusions and/or make recommendations
l) Effective Dissemination: Understand the methodological process of developing and implementing collection and analytic plans, to include the re-evaluation of processes/products. Ability to share findings with the public, organizational managers, and with peers in an academic or analytic-practitioner setting. Develop an effective, directed and informative verbal presentation that will be useful to the specific audience being addresses
m) Spreadsheet Operations: Ability to use a computer to create an electronic matrix or spreadsheet, manipulate the data and/or records and use statistical formulae to answer fundamental questions including forecasting, and correlation. Know how to perform cross-tabulations, create charts and graphs, and export these objects to other applications.
n) Internet and Opens Source Intelligence (OSINT) Skills: Securely and effectively access the Internet, use search engines, as a tool for open source intelligence (OSINT) gathering. Conduct advanced searches of online resources using operators and deep web techniques, navigate domain specific platforms and analysis-related information on the Internet
o) Use of Databases: Find and use relevant permissible database resources. Design a data management and linking strategy. Explain structured and unstructured data.
p) Use of Advanced and Structured Analytic Techniques (SATs): Ability to explain and choose appropriate analytical techniques to specific situations based on the taxonomy of Heuer's SATs and the advanced techniques. Experience the development of intelligence through the application of critical thinking, logic, inference development, and recommendation development.

15. **Teaching, learning and assessment procedures:** Online sessions delivered through

our Institutional platform (MS Teams), access to study material on MS Teams and our Digital Library for independent study. Assessments are online.

16. **Type of Assessment:** Written exams, Research Assignment (including elements of report writing, critical analysis of case studies, presentations, group work as appropriate), Dissertations and Case Study, Individual Presentations, practical assignments, projects, etc. (Teaching and learning methodologies available in the Course outlines)
17. **Registration Method:** Online on EFI Admissions Portal
18. **Next Intake:** October every Academic Year
19. **Pass Rate:** 40% (EFI grading system)

Grading system

Learning Outcome Score	Percentage Equivalent	Description	Honours Degree Classification	Other Award Classification	Qualitative Description
10	100	Pass	First	**High Distinction**	Student has achieved the Learning outcome with no issues noted
7-9	70 - 99	Pass	First	Distinction	Student has achieved the Learning outcome with minimal and/or negligible Issues
6	60 - 69	Pass	Upper Second	Merit	Student has achieved the Learning outcome with minor but non-negligible issues
5	50 - 59	Pass	Lower Second	Pass	Student has achieved the learning outcome with non-negiglible Issues
4	40 - 49	Pass	Third	Pass	Student has achieved the learning outcome with significant non-negligible issues
1-3	1-39	Fail	Fail	Fail	Student has NOT achieved the learning outcome with significant issues noted
0	0	Fail	Fail	Fail	Student did not answer question

20. **Registration:** admissions process, a step-by-step-guide and other information are available on our website https://www.eufor.eu/education/admission/
21. **Identity Malta's VISA requirement for third-country nationals:** https://www.identitymalta.com/unit/central-visa-unit/
22. **Contact Details:** available on our website (https://www.eufor.eu/contact-us/)
23. **Address:** Malta Life Sciences Park, Sir Temi Zammit Buildings – SGN 3000, San Gwan

Fundamentals of Crime and Intelligence Analysis

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Describe the history and function of crime and intelligence analysis.
b) Understand the theoretical basis underlying the production of crime and intelligence information, in support of decision-making at the strategic, tactical, and operational levels of law enforcement and related fields.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Demonstrate comprehension of the theoretical foundations of crime and intelligence analysis, the intelligence cycle.
b) Label the function of the intelligence analysis unit in law enforcement, security and related fields and the role of the analyst within the field.
c) Define the role of intelligence in public safety and how analytic products that interpret the operating environment can make recommendations to improve overall public safety.
d) Explain the historical evolution of law enforcement practices that led to the varying roles of analysts and analysis in law enforcement.

Skills
At the end of the module/unit the learner will have acquired the following skills:

a) Describe and assess the effectiveness of an intelligence analysis programme.
b) Identify and differentiate between crime patterns, series, and trends.
c) Describe the three types of crime and intelligence analysis (tactical, strategic and administrative), and the eight functions of a crime analysis unit.
d) Explain the definition of crime analysis, as well as the types, functions, and processes of crime analysts and crime analysis while implementing the analysis cycle.
e) Explain the relationship between military intelligence, corporate intelligence, law enforcement, courts and analysis.

Perspectives on Organised Crime

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Equip students with a robust conceptual toolkit that will enable them to independently and critically examine any manifestation of organised crime.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Understand the social embeddedness of organized crime, the impact of organized crime on the legal economy, and the complicated relationship between organized crime and government.
b) Appraise the main definitions and approaches to (Transnational) Organized Crime.
c) The EU approaches and responses to Organized Crime.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Develop a conceptual toolkit that will enable them to conduct independent research by independently and critically examine any manifestation of organized crime.
b) Identify and critically evaluate a range of operational approaches to the phenomenon.
c) Employ practical approaches to provide analysis support to an OC investigation.

Data analysis

Competences
At the end of the module/unit the learner will have gained knowledge and understanding to:
a) Advise the relevant data in connection with the business process and environment
b) Carry out an analysis of the data in line with the objective of the strategy
c) Produce a report or presentation with meaningful information after the data analysis specific to the audience

Knowledge
At the end of the module/unit the learner will have been exposed to the following:
a) Accurately identify the various types of data
b) Accurately describe the various types of data analysis
c) Correctly analyse the data using available tools to construct a report
d) Draw accurate conclusions based on the analysis of the data

Skills
At the end of the module/unit the learner will have acquired the following skills:
a) Effectively assess the available data relevant to a case or investigation
b) Correctly apply and justify the right analysis based on the type of data available and limitations
c) Create a report to reflect the achievement of the objective of the research/ investigation appropriate to the audience
d) Identify the appropriate tools or software to evaluate a data set in any given scenario

Module-Specific Learner Skills
At the end of the module/unit the learner will be able to:
a) Recognise patterns in data
b) Analyse data using appropriate tools and assumptions
c) Prepare reports that reflect the objective of the research or investigation

Module-Specific Digital Skills and Competences
At the end of the module/unit, the learner will be able to
a) Use data analysis tools such as Python, Anaconda, Power BI, Tableu or SPSS
b) Understand the differences and limitations of major data analysis tools

Introduction to Financial Crime and Fraud

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Interpret the rules governing financial crime.
b) Advise about the risk of financial crimes
c) Carry out risk assessments based on business environment red flags
d) Monitor for gaps and discrepancies in various financial crimes
e) Develop strategies for managing financial crime risks.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Define types of financial crimes
b) Explain how the risk of financial crime affects your business.
c) Recognize various types of fraud in the financial sector
d) Draw accurate conclusions on case studies of various financial crimes
e) Identify red flags that indicate financial crimes including behavioral red flags
f) Explain key concepts in fraud identification, deterrence, and detection.
g) Relate the most important risks and preventative measures for financial crime.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Demonstrate an understanding of the various financial crimes
b) Examine financial crime trends.
c) Use fraud investigation process from planning to reporting
d) Apply the type of financial crime and red flag to the various case studies
e) Relate various key concepts in fraud investigation process and different techniques used to investigate the fraud.
f) Plan the risk of financial crimes based on the red flags identified
g) Develop a comprehensive and efficient fraud response programme for the business.

Module-Specific Learner Skills
The learner will be able to:

a) Independently recognize behavioral red flags
b) Analyse and make a report of fraud and investigation activities.
c) Evaluate the gathering of evidence for a court case or for a client.
d) Proactively identify and report on new fraud patterns and make recommendations to mitigate the risks.

Module-Specific Digital Skills and Competences
The learner will be able to:

a) Analyze the public, private or court documents to see whether there are any criminal records.

Knowledge of Criminal Behaviour

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Deal with theories of criminal behaviour and typology research as applied in crime and intelligence analysis.
b) Develop knowledge to understand offender motivation.
c) Carry out tasks and be responsible for analytical duties that support crime reduction strategies.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Identify key theories underlying crime and intelligence analysis, including the criminal event perspective, series profiles, and Routine Activity Theory.
b) Describe how contemporary criminological theories are applied to the practical resolution of crime through criminal analysis.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Describe the theoretical foundation of crime scripting
b) Able to apply crime scripting to a pattern of criminal behavior and based on their scripting make recommendations.

Module-Specific Learner Skills
The learner will be able to:

a) Demonstrate an in-depth understanding on one of the topics of choice relating to criminal behavior, by reviewing academic articles, non-academic literature and media on their topic of choice.

Spatial Analysis

Competences

At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Describe the activities that surround the analysis of spatial data, in support of decision-making in law enforcement and related fields
b) Deal with how contemporary spatial methodologies apply to the practical aspects of resolving crime through geographic crime analysis

Knowledge

At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Able to outline basic concepts related to geographical data.
b) Identify how various data is of relevance to spatial analysis in law enforcement and related fields, such as crime data, social data, and economic data.
c) Demonstrate a working knowledge of GIS concepts and principles.
d) Know the mapping design principles that govern crime mapping within law enforcement and related fields.
e) Describe the function of base maps and layers for crime mapping and analysis.
f) Find the various maps produced in crime analysis, for example, hotspot, point symbol (pin) maps and area symbol maps, etc.
g) Define the relationship between geographic data and crime analysis.
h) Recall common spatial analysis techniques.

Skills

At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Find available data sources for exploring spatial relationships.
b) Demonstrate the ability to create map layouts suitable for distribution.

Module-Specific Learner Skills

The learner will be able to:

a) Provides an introduction to crime Mapping as a specific function within the domain of crime and intelligence analysis in which mapping, and visualization are used to effectively analyse the spatial and geographic attributes of police and crime activity
b) Explores the theoretical underpinnings of the spatial distribution of crime with attention to prevention, intervention, order maintenance, and policy implications.

Module-Specific Digital Skills and Competences

The learner will be able to:

a) Develop skills in the mapping of crime patterns and series.
b) Introduced to how to use a Geographic Information System (GIS).
c) Using the software application Esri ArcGis Pro, students will practice in a computer lab setting some of the most common spatial analytical techniques used in applied work of this kind.

PgC Independent Research

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:
a) Demonstrate administrative design for original content of research
b) Undertake further studies with a fair degree of autonomy including searching for and studying existing research papers on relevant field and appropriately citing the source

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:
a) Use theories and principles in chosen field of research
b) Apply methods and tools available to accomplish their research goal.

Skills
At the end of the module/unit the learner will have acquired the following skills:

Applying knowledge and understanding
The learner will be able to:
a) Communicate ideas, problems and solutions using a range of techniques involving qualitative and quantitative information in a written report suitable for a professional in the field
b) Evaluate own learning and identifies learning needs

Judgment Skills and Critical Abilities
The learner will be able to:
a) Critically evaluate and interpret the results of the personal analysis
b) Analyse, identify key issues, carry out an independent investigation using multiple information sources and apply critical judgement to construct logical arguments

Module-Specific Communication Skills
The learner will be able to:
a) Explain in a clear and simple way the chosen procedure and the reached conclusions.
b) Write a report in a correct and clear way, relevant and understandable to professionals in the field
c) Submit his/her findings before the set deadline and answer any question that may rise about the research in a professional and confident manner

Module-Specific Learner Skills
The learner will be able to:
a) Conduct research on chosen field using cross-disciplinary knowledge acquired in the previous months

Module-Specific Digital Skills and Competences
The learner will be able to:
a) Write a 15-20 (3750-5000 words) pages long paper using IT instruments

Use the internet to find information

Qualitative Analysis for Strategies in Crime Reduction and Prevention

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Describe the activities that surround the collection and use of qualitative information for crime analysis purposes and how to apply these in original research for a crime reduction or prevention strategy.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Demonstrate comprehension of qualitative research methods.
b) Demonstrate comprehension of the process of reducing a particular type of crime and asses what can be expected when using a particular preventative strategy.
c) Define the roles that the environment, government, industry and others can play in influencing crime opportunity, both positively and negatively.
d) Find to design independent research, evaluate a crime reduction strategy, and how these theoretical concepts can inform policy in law enforcement and related fields.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Identify qualitive research and reports and describe the research findings from these reports.
b) Find qualitive data sources that might inform research on crime.
c) Consider structural and systemic drivers of crime.
d) Demonstrate usage of the SARA framework to make proposals for a crime reduction process.
e) Have the ability to determine the validity, the reliability, quality, and the credibility of verbal, written, numeric and graphic information encountered during the analysis process. Discusses examples of applied research in crime analysis.

Critical Thinking and Structured Analytic Techniques

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Describe the deliberative and cognitive activities that produce more objective and credible judgments by mitigating cognitive biases.
b) Cope with information overload
c) Make thought processes more rigorous.
d) Think in a disciplined and evaluative manner
e) Evaluating and interpreting the processes by which various claims are made.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Why critical thinking is vital.
b) Recognize arguments and evaluate them.
c) Ways in which systemic thought processes can result in flawed analysis.
d) Choose the appropriate Structured Analytic Technique in a concrete situation.
e) Explain the concepts of Ockham razor, Reductio ad absurdum and Dunning-Kruger.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Apply key concepts in logical thinking to crime analysis.
b) Identify and examine formal and informal reasoning fallacies.
c) Construct an hypothesis using abductive reasoning.
d) Identify deductive and inductive arguments.
e) Choose the appropriate Structured Analytic Technique in a concrete situation.

Module-Specific Learner Skills
The learner will be able to:

a) Provides insights into the systemic thought processes that influence cognitive information processing.
b) Cultivates critical thinking and problem-solving skills and cultural awareness sensitivity.

Statistical Analysis of Crime

Competences

At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Calculate and conduct basic statistical analyses and use those results to inform decision making.
b) Describe the interpretation, and application of statistical concepts in crime analysis.
c) Focus on both the practical application and the theoretical.

Knowledge

At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Measurement strategies and causal inference.

Skills

At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Perform systematic analysis of data from a wide variety of sources in order to provide information about the patterns and trends of crimes.
b) Develop research questions and describe and draw conclusions from quantitative data.
c) Identify and use various criminal justice statistical data sources.
d) Draw conclusions from quantitative data and interpret statistical research findings.

Module-Specific Learner Skills

The learner will be able to:

a) Develop proficiency working with large data sets and conducting analysis with a critical lens using Excel.
b) Have the ability to understand and compare local and national crime statistics using common data standards, codebooks, and data dictionaries. Explain data quality and governance. Critique the rules and standards as well as the caveats and shortcomings of these data sets. (PgD)
c) Ability to use a computer to create an electronic matrix or spreadsheet, manipulate the data and/or records and use statistical formulae to answer fundamental questions including frequency, percent, percent change, sum, average, standard deviation, regression analysis, forecasting, and correlation. Know how to perform cross-tabulations, create charts and graphs, and export these objects to other applications.

Module-Specific Digital Skills and Competences

The learner will be able to:

a) Use a computer to create an electronic matrix or spreadsheet, manipulate the data and/or records and use statistical formulae to answer fundamental questions including frequency, percent, percent change, sum, average, standard deviation, regression analysis, forecasting, and correlation.
b) Perform cross-tabulations, create charts and graphs, and export these objects to other applications.
c) <u>Assess the Integrity of Information</u>: Have the ability to determine the validity, the reliability, quality, and the credibility of numeric information encountered during the analysis process. Assess the quality of data analytics for both its practical and statistical significance.

Advanced Web and Open Source Intelligence

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:
a) Advise businesses and government agencies about the various types of Web and Open Source Intelligence Tools.
b) Carry out a Web and Open-Source process and investigation
c) Be responsible for various types of data available including sourcing from the dark web
d) Establish a secure data collection platform.
e) Carry out OSINT investigations for a wide range of clients.
f) Examine the customers' collection requirements.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:
a) Apply the various types of Web and Open Source Intelligence Tools
b) Sequence a Web and Open Source process and investigation
c) Discover the various types of data available including sourcing from the dark web
d) Analyse online resources for tracking people and organizations on a global scale, including public record databases and a powerful people search tool.
e) Discuss current challenges and trends in social media and open source research

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:
a) Demonstrate the application of various types of Web and Open Source Intelligence Tools.
b) Apply a Web and Open Source process and investigation
c) Discover more about the ethical issues surrounding the use of OSINT methods in law enforcement and research.
d) Demonstrate the various types of data available including sourcing from the dark web
e) Use Open Source platforms such as social media, search engines, and the dark web to access, explore, and gather intelligence.
f) Evaluate the usefulness and accuracy of internet sources and data.

Module-Specific Learner Skills
The learner will be able to:
a) Create tools and methods for gathering and managing data from both online and offline sources.
b) Investigate and locate relevant information from a variety of sources using cutting-edge technology and innovative research approaches.

Module-Specific Digital Skills and Competences
The learner will be able to:
a) Perform advanced browsing.
b) Structure collected data.
c) Use a wide range of web Intelligence Open Source tools.

Investigative Charting

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Apply the theoretical foundation and the activities that surround the production of investigative charts.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Demonstrate comprehension of the theoretical foundations of investigative charting and describe the eight steps of developing link charts.
b) Be aware of the business rules for charting layouts.

Skills
At the end of the module/unit, the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Construct an event timeline to identify, analyze, and report on nefarious activities.
b) Develop call pattern and communication records charts.
c) Construct link charts and organizational charts.
d) Develop event flow and commodity flow charts and related analytical product to depict the movement of commodities and relationships between events.
e) Using i2 Analyst Notebook to create various kinds of investigative charts which depict information to further investigations and intelligence efforts.
f) Upload structured data to Analyst Notebook.

Temporal Analysis, Forecasting and Predictive Policing

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Make the timing of crimes both explicable and predictable by conducting temporal analysis based on information of time, duration, frequency, and regularity.
b) Explain how predictive models assist crime prevention and reduction strategies
c) Understand the ethical and social implications of predictive policing.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) How the analysis of future trends assists law enforcement in resource allocation or the development of policy.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Explain how to calculate and analyse the times of day, days of week, intervals, durations, tempos, and temporal cycles of crime in general and of criminal behaviour in short-term and long-term series, patterns, and trends.
b) Use temporal analysis in making forecasts and predictions of future incidents regarding identified crime trends and series.
c) Apply temporal crime forecasting methodologies based on crime patterns and series.
d) Describe the distribution of a given group of incidents over a defined period of time, with defined intervals.
e) Use time and date data to provide an understanding of the context and order of events.
f) Detect criminal patterns based on temporal data and make recommendations based on the outcome of the analysis.
g) Understand the concepts of frequency and consistency and can apply these concepts appropriately in a crime or intelligence analysis context.
h) Explain and apply concepts such as burn-rate and seasonality.
i) Produce a visual timeline to reconstruct the chronological sequence of events leading to an incident.
j) Use software to conduct Temporal Analysis (Excel and/or i2 Analyst Notebook).

PgD Independent Research

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Demonstrate administrative design for original content of research
b) Be responsible for work and study contexts that require problems to be solved
c) Undertake further studies with a relevant degree of autonomy including searching for and studying existing research papers on relevant field and appropriately citing the source

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Provide details of theoretical and practical knowledge involving understanding of theories and principles in chosen field of research
b) Understanding methods and tools available including most recent innovation in the field

Skills
At the end of the module/unit the learner will have acquired the following skills:

Applying knowledge and understanding
The learner will be able to:

a) Communicate ideas, problems and solutions using a range of techniques involving qualitative and quantitative information in a written report suitable for a professional in the field
b) Evaluate own learning and identifies learning needs
c) Devise and sustain arguments to solve problems

Judgment Skills and Critical Abilities
The learner will be able to:

a) Gather and critically evaluate and interpret the results of the personal analysis and of the analysis of other experts involved in the research
b) Investigate and analyse, identify key issues, carry out an independent investigation using multiple information sources and apply critical judgement to construct logical arguments

Module-Specific Communication Skills
The learner will be able to:

a) Communicate to colleagues and co-workers personal ideas regarding procedural choices, made or to be made.
b) Write a report in a correct and clear way, relevant and understandable to professionals in the field being able to write a conclusion of his/her research
c) Submit his/her findings before the set deadline and answer any question that may rise about the research in a professional and confident manner

Module-Specific Learner Skills
The learner will be able to:

a) Conduct a detailed research on chosen field using cross-disciplinary knowledge acquired throughout the year
b) Develop in-depth study, be it experimental, conducted alone or in a team.

Module-Specific Digital Skills and Competences
The learner will be able to:

a) Write a 20-30 (5000-7500 words) pages long paper using IT instruments

Use the internet to find information

Advanced Mobile Forensics and Cell Site Analysis

Competences

At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Perform a complex forensic acquisition of a mobile device.
b) Perform a forensic acquisition of Call Detail Record (CDR) and check the real cell tower coverage.
c) Correlate mobile extraction and Cell Site Analysis (CSA) analysis for a trustworthy report.
d) Deal with data analysis and correlation in complex investigation cases.

Knowledge

At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Determine how the evidence came to be on the mobile device.
b) Explain how data is stored on smartphone components, as well as how encrypted data can be viewed.
c) Describe file systems and locate information that isn't readily available to the public on mobile devices.

Skills

At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Perform a complex forensic acquisition and analysis of a mobile device.
b) Retrieve lost information by examining SQLite databases and raw data dumps from devices.
c) Manage smartphone encryption and manually retrieve lock codes by bypassing, cracking, and/or decoding them.
d) Perform a complex forensic analysis of CDR files and Base Transceiver Station (BTS) data.
e) Create a report that involves multiple sources of data.

Module-Specific Learner Skills

The learner will be able to:

a) Analyse a digital forensic image.
b) Perform a digital forensic analysis.
c) Document all the steps of a digital forensic analysis.
d) Evaluate the documentation and objects submitted for the forensic analysis.
e) Ask appropriate information to authorities and clients.
f) Evaluate the digital forensic analysis carried out by other experts.
g) Choose the appropriate hardware and software instrumentation for the activity.

Module-Specific Digital Skills and Competences

The learner will be able to:

a) Write a report using computer and editing software.
b) Operate with specific digital, mobile and cell site analysis forensic software.

Effective Dissemination of Analytical Product

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Understand the value of appropriate dissemination of analytical product, means of dissemination of analytical product and suitable style of dissemination of analytical product.

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) The various forms of writing and can explain what form is applicable for analytical product dissemination.

Skills
At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Ability to share findings with the public, organizational managers, and with peers in an academic or analytic-practitioner setting.
b) Incorporate analyses into effective written reports that are useful to investigation, strategy, and policy decisions within the field of law enforcement and other related fields.
c) Develop an effective, directed and informative verbal presentation that will be useful to the specific audience being addressed. Present findings to a variety of audiences in a clear and accurate way.
d) Produce documents such as bulletins and reports suitable for dissemination to various audiences and to incorporate graphics into these documents (e.g., charts, maps, pictures, diagrams).
e) Design periodic publications for dissemination such as bulletins, using proper style and voice.
f) Apply appropriate presentation style using PowerPoint.
g) Use technology for their dissemination.

Social Network Analysis

Competences

At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Preventing criminal networks and trafficking rings from (re)gaining strength, even after they are dismembered.
b) Learn the value of Social Network Analysis to policing of high-harm crimes.

Knowledge

At the end of the module/unit the learner will have gained knowledge and understanding to:

a) How Social Network Analysis can be used for testing the effects of interventions on networked criminal activity.
b) Apply key centrality measures.
c) Theoretical foundations of Social Network Analysis.

Skills

At the end of the module/unit the learner will have acquired the following skills: Applying knowledge and understanding. The learner will be able to:

a) Identify and recommend opportunities of targeting of criminal networks.
b) Identifying central individuals – key players and brokers within a network.
c) Identifying criminal clustering.
d) Use software (Gephi and i2 Analyst Notebook) to conduct Social Network Analysis.

Master's Independent Research and Final Dissertation

Competences
At the end of the module/unit the learner will have acquired the responsibility and autonomy to:

a) Demonstrate administrative design for original content of research
b) Be responsible for work and study contexts that are unpredictable and require that complex problems are solved
c) Undertake further studies with a high degree of autonomy including searching for and studying existing research papers on relevant field and appropriately citing the source

Knowledge
At the end of the module/unit the learner will have gained knowledge and understanding to:

a) Analyse cross-disciplinary knowledge that includes some aspects that will be at the forefront of this field
b) Use theories and principles in chosen field of research
c) Apply methods and tools available including most recent innovation in the field
d) Create a genuine work using specialized anti-plagiarism software (pedagogical approach).

Skills
At the end of the module/unit the learner will have acquired the following skills:

Applying knowledge and understanding
The learner will be able to:

a) Apply cross-disciplinary knowledge and understanding acquired throughout the programme in a professional manner
b) Communicate ideas, problems and solutions using a range of techniques involving qualitative and quantitative information in a written report suitable for a professional in the field
c) Devise and sustain arguments to solve problems
d) Continuously evaluates own learning and identifies learning needs

Judgment Skills and Critical Abilities
The learner will be able to:

a) Gather and critically investigate relevant data to inform judgements that include reflection on social, scientific and/or ethical issues
b) Critically evaluate and interpret the results of the personal analysis and of the analysis of other experts involved in the research
c) Investigate and analyse, including the ability to formulate problems clearly, identify key issues, carry out a substantial independent investigation using multiple information sources and apply critical judgement to construct logical arguments

Module-Specific Communication Skills
The learner will be able to:

a) Communicate to colleagues and co-workers personal ideas regarding procedural choices, made or to be made.
b) Explain in a clear and simple way the chosen procedure and the reached conclusions.
c) Write a report/essay/thesis in a correct and clear way, relevant and understandable to professionals in the field
d) Present his/her findings professionally to a panel and confidently discuss any questions raised

Module-Specific Learner Skills
The learner will be able to:

a) Conduct in-depth study and research on chosen field using cross-disciplinary knowledge acquired throughout the programme
b) Develop projects of innovative research or in-depth study, be it experimental, conducted alone or in a team.

Module-Specific Digital Skills and Competences
The learner will be able to:

a) Write a 30-40 (7500-10000 words) pages long dissertation using IT instruments
b) Use the internet to find information
c) Write a genuine dissertation with the support of anti-plagiarism software

Master's in Crime and Intelligence Analysis

Post Graduate Certificate					Percentage of Total Contact Hours		Hours of Total Learning			
Module	ECTS	MQF/EQF Level	Compulsory/Elective	Total learning hours	Contact Hours Delivered Online	Contact Hours Delivered Face-to-Face	Total Contact Hours	Supervised Placement and Practice Hours	Self-Study Hours	Assessment Hours
Fundamentals of Crime and Intelligence Analysis	4	7	Compulsory	100	100%	0%	20	0	75	5
Perspectives on Organised Crime	3	7	Compulsory	75	100%	0%	20	0	54	1
Data Analysis	4	7	Compulsory	100	100%	0%	20	0	50	30
Introduction to Financial Crime and Fraud	4	7	Compulsory	100	100%	0%	20	0	76	4
Knowledge of Criminal Behaviour	4	7	Compulsory	100	100%	0%	25	0	72	3
Spatial Analysis	5	7	Compulsory	125	100%	0%	50	0	65	10
PgC Independent Research	6	7	Compulsory	150	100%	0%	30	0	90	30
Post Graduate Diploma					**Percentage of Total Contact Hours**		**Hours of Total Learning**			
Module	ECTS	MQF/EQF Level	Compulsory/Elective	Total learning hours	Contact Hours Delivered Online	Contact Hours Delivered Face-to-Face	Total Contact Hours	Supervised Placement and Practice Hours	Self-Study Hours	Assessment Hours
Qualitative Analysis for Strategies in Crime Reduction and Prevention	4	7	Compulsory	100	100%	0%	25	0	70	5
Critical Thinking and Structured Analytic Techniques	5	7	Compulsory	125	100%	0%	25	0	95	5
Statistical Analysis of Crime	4	7	Compulsory	100	100%	0%	30	0	68	2
Advanced Web and Open-Source Intelligence	4	7	Compulsory	100	100%	0%	20	0	76	4
Investigative Charting	4	7	Compulsory	100	100%	0%	50	0	40	10
Temporal Analysis, Forecasting and Predictive Policing	3	7	Compulsory	75	100%	0%	25	0	45	5
PgD Independent Research	6	7	Compulsory	150	100%	0%	30	0	90	30
Master's					**Percentage of Total Contact Hours**		**Hours of Total Learning**			
Module	ECTS	MQF/EQF Level	Compulsory/Elective	Total learning hours	Contact Hours Delivered Online	Contact Hours Delivered Face-to-Face	Total Contact Hours	Supervised Placement and Practice Hours	Self-Study Hours	Assessment Hours
Advanced Mobile Forensics and Cell Site Analysis	6	7	Compulsory	150	100%	0%	30	0	114	6
Effective Dissemination of Analytical Product	2	7	Compulsory	50	100%	0%	20	0	29	1
Social Network Analysis	4	7	Compulsory	100	100%	0%	50	0	45	5
Master's Independent Research and Final Dissertation	18	7	Compulsory	450	100%	0%	90	0	300	60