

# IACA Certification Exam Study Guide

## By Skill Set

This study guide is to be used as a supplement to materials used in preparing for the IACA Certification Exam. It is not meant to be the sole study tool for the exam. Questions on the exam may be worded differently than concepts provided in this study guide. This study guide is not all-inclusive and only provides general concepts that are covered on the exam. This study guide should also be used in combination with other references in addition to IACA's *Exploring Crime Analysis* book.

### Knowledge of Crime Analysis Basics

- History of crime analysis
- Classifications of law enforcement analysis
- Classifications of crime analysis
- Crime series, crime patterns, crime trends
- Crime analysis process
- Methods of analysis
- Strategy development

### Evaluate the Integrity of Information

- Data errors
- Data cleaning
- Search and replace operations
- Parsing and concatenation
- Metadata
- Alias tables

### Knowledge of Criminal Behavior

- Elements of a crime
- Criminal Event Perspective
- Routine Activity Theory
- Modus operandi
- Signature
- Method of approach and attack
- Series profile
- Geographic profiling and environmental criminology
- Spatial characteristics of criminal events

### Understand the Criminal Justice System

- The United States Constitution
- The Bill of Rights
- System models
- Role and function the courts
- Corrections
- Determinate and indeterminate sentencing
- Probable cause

### Conduct Temporal Analysis

- Measuring time
- Tempo
- Sequential analysis
- Frequency analysis
- Midpoint method
- Weighted method

### Use Descriptive Statistics

- Levels of measurement
- Frequency distribution
- Measures of central tendency
- Percentages
- Skewness
- Standard deviation
- Rates
- Percent change
- Correlation analysis

### Use Inferential Statistics

- Statistical inference
- Types of sampling
- Sampling designs
- Level of significance

### Conduct Demographic Analysis

- Correlates of crime
- Age and socio-economic factors
- U.S. Census Bureau
- Census Bureau geographic statistical subdivisions

### Interpret Crime Statistics

- Primary data sources
- Police data systems
- Uniform Crime Reporting (UCR)
- National Incident Based Reporting Systems (NIBRS)
- National Crime Victimization Survey
- Calls for service data
- Rates
- Correlation
- Statistical significance

### Spatial Analysis

- Cartography
- Geographic information system (GIS)
- Geocoding
- Map projection
- Coordinate systems
- Spatial data models
- Thematic mapping
- Hot spots
- Distance decay

### Investigative/Intelligence Analysis Charting

- Intelligence-led policing
- Link charts
- Timelines
- Organizational charts
- Commodity flow charts
- Event flow charts
- Visual investigative analysis
- Financial analysis

### Reading Comprehension

- Literature reviews
- Annotated bibliography
- Abstracts databases
- Online resources
- Government resources

### Writing Expository Narratives

- Expository writing
- Analytical writing
- Objectivity
- Identification of audience
- Determining relevant information
- Abstract and concrete terms
- General and specific terms
- Executive summaries
- Analytical outlines

### Making Effective Presentations

- Professionalism
- Components of effective presentations
- Presentation tools
- Presentation planning
- Use of technology

### Word Processing Skills

- Understanding your audience
- Principles of adult learning
- Form and style
- Including graphics
- Disclaimers
- Dissemination

### Spreadsheet Operations

- Cellular reference systems
- Data storage
- Charting
- Crime analysis formulas
- Macros

### Internet / Intranet Skills

- URLs
- Web-based training
- Visible versus invisible web
- Search engines
- Listservs
- Law enforcement websites
- ISPs

- Intranets
- Hyperlinks
- Citing online references

#### Applied Research Methods in Crime Analysis

- Opportunity Theory
- Situational Offending
- Displacement and diffusion of benefits
- Long-term trend analysis
- Data collection
- Environmental surveys
- SARA

#### Evaluation of Qualitative Information

- Qualitative Analysis
- Problem-Oriented Policing
- Sources of qualitative information
- Code of the Street
- Qualitative research methods
- Inductive model
- Deductive model
- Open-ended vs. closed-ended questions

#### Critical Thinking Skills

- Types of reasoning
- Elements of reasoning
- Reasoning fallacies
- Creativity
- Problem solving
- Metacognition