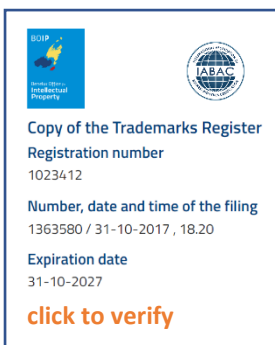




# Business Analytics Specialist Health Care (BASHC) CODE: BA1150 Syllabus and Examination



*The International Association for Business Analytics Certification (IABAC®) is a globally recognized professional association dedicated to growing and enhancing the field of applied Data Science and Business Analytics.*

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# 1 INTRODUCTION

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This document is intended to provide information on Business Analytics Specialist Health Care (BASHC-BA1150) certification for registered training providers to structure the course curriculum as per IABAC syllabus guidelines and for individuals, who are preparing for IABAC BASHC certification exam.

## 2 COURSE SYLLABUS

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### 2.1 BUSINESS ANALYTICS PRIMER

- Business Analytics Overview
- Statistics
- Machine Learning Introduction
- Decision Modelling
- Business Analytics Modelling

### 2.2 HEALTH CARE MANAGEMENT KEY PROCESSES AND DATA

- Key process and metrics
- Key performance indicators and critical success factors
- Data collection and management

### 2.3 BUSINESS ANALYTICS TECHNIQUES AND USE CASES

- Descriptive Health care Analytics
- Predicting Modelling
- Use cases from the industry.

### 2.4 PROJECT IN HEALTH CARE ANALYTICS

## 3 EXAMINATION

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### 3.1 PRE-REQUISITE QUALIFICATIONS

1. IABAC Certified Business Analytics Expert (CBAE) certification is mandatory.
2. Recommended Health Care domain expertise.
3. Training: Though formal training is not mandatory; it is recommended to attend IABAC® registered course through Registered Education Partners

### 3.2 MATERIAL PERMITTED

1. The examination is an 'open book'
2. Candidates can refer to any material

### 3.3 EXAM DURATION AND FORMAT

1. Exam format is through a Project Submission
2. The assessment duration is 10 days
3. The project is graded based on effectiveness of the solution, value to business and project report.

### 3.4 EXAM MODE

1. Project needs to be submitted at IABAC project submit page, as per exam guidelines
2. Any copied work, ideas, concepts or a piece of text needs to be marked with reference as per IABAC project plagiarism guidelines

### 3.5 PASS CRITERIA

1. The candidate needs to score assessment grade A+, A, B+, B, C+, C as a PASS Criteria
2. The candidate will be awarded grade F in case of failing to meet the pass criteria
3. The results will be declared after validation with the project guidelines

### 3.6 RESULTS TIMELINE

1. The preliminary results are usually released within **9 days** of the exam date
2. The official results are usually released within **15 days** from the exam date

### 3.7 CERTIFICATE ISSUANCE

- IABAC® e-certificate will be issued through the candidate's registered email
- The e-certificate is digital verifiable at <https://www.iabac.org/verify-certificate>
- The candidate has a license to share digital certificate validation in professional networking portals such as [www.linkedin.com](http://www.linkedin.com)
- The candidate has a license to print physical copy (hardcopy) of the certificate

## 4 IABAC® KNOWLEDGE AREAS MAPPING

Knowledge Area	Syllabus Details	Bloom's Index
<p><b>KAG1-DSDA:</b> Data Analytics group including Machine Learning, Statistical Methods, and Business Analytics</p>	<ul style="list-style-type: none"> <li>● Case Study on Statistical Analysis</li> <li>● Curating the Data and performing, Discrete Mathematics, Probabilistic Reasoning</li> <li>● Statistical Methods, including Descriptive Statistics, Exploratory Data Analysis (EDA) and Confirmatory Data Analysis (CDA)</li> <li>● Case Study &amp; Creating Machine Learning Model</li> <li>● With detailed implementation of algorithms: Artificial Intelligence, Natural Language Processing</li> <li>● Knowledge Representation and Reasoning</li> <li>● Data Mining and knowledge discovery</li> <li>● Text analysis, Data Mining, Text Analytics including Statistical, Linguistic, and Structural Techniques to analyse Structured and Unstructured data</li> <li>● Creating Predictive Forecasting Models</li> <li>● Decision Analysis and Decision Support Systems</li> <li>● Data Mining</li> </ul>	6
<p><b>KAG2-DSENG:</b> Business Analytics Engineering group including Software and Infrastructure Engineering</p>	<ul style="list-style-type: none"> <li>● Set Up Infrastructure and Big Data Applications</li> <li>● Computer Networks for high-performance computing and Big Data Infrastructure</li> <li>● Cloud Enabled Applications development</li> <li>● Modelling and Simulation</li> <li>● Modelling and Simulation Theory and Techniques (general and domain oriented)</li> <li>● Large Scale Modelling and Simulation Systems</li> <li>● Set up Big Data (Business Analytics) Applications Design</li> <li>● Programming Languages for Big Data Analytics: R, Python, others</li> <li>● Models and Languages for complex interlinked Data Presentation and Visualisation</li> </ul>	5
<p><b>KAG3-DSDM:</b> Data Management group including Data Curation,</p>	<ul style="list-style-type: none"> <li>● Creating Database Models and Data Curation</li> <li>● Data Modelling, Databases and Database Management Systems, Data Models and Query Languages, Database Administration</li> <li>● Set up Data Management and Enterprise Data Infrastructure</li> </ul>	4

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Preservation and Data Infrastructure	<ul style="list-style-type: none"> <li>● Data management, including Reference and Master Data, Data Warehousing and Business Intelligence, Data storage and Operations</li> <li>● Data Archives/Storage Compliance and Certification Metadata, Linked data, Provenance</li> <li>● Data Infrastructure, Data Management and Organisation Research Data Infrastructure, Open Science, Open Data, Open Access, Data Infrastructure Compliance and Certification, Ethical Principle and Data Privacy</li> </ul>	
<b>KAG4-DSRM:</b> Scientific and Research Methods group	<ul style="list-style-type: none"> <li>● Scientific/Research Methods</li> <li>● Research Methodology, Paradigms and Research Cycle, Modelling and Experiment Planning</li> <li>● Data Selection and Quality Evaluation</li> <li>● Use Case Analysis: Research Infrastructures and Projects Research Data Management plan and Ethical Issues</li> </ul>	6
<b>KAG5-DSBPM:</b> Business Process Management group	<ul style="list-style-type: none"> <li>● Business Process Management</li> <li>● Business Processes and Operations, Project Scope and Risk Management</li> <li>● Business Analysis - Organisation and Management</li> <li>● Business Analysis - Planning and Monitoring</li> <li>● Requirements Analysis and Design Definition</li> <li>● Requirements Life Cycle Management (from inception to retirement) Solution Evaluation and Improvements Recommendation</li> <li>● Business analysis and Enterprise Organisation</li> <li>● Agile Data Driven Methodologies, Processes and Enterprises</li> <li>● Use Case Analysis: Business and Industry</li> </ul>	4
<b>KAG6-DSDK:</b> Business Analytics Domain Knowledge group includes domain specific knowledge	<ul style="list-style-type: none"> <li>● Applied Business Analytics use cases in Domains, HR, Retail, Fraud Analytics, Finance Trends, Health Care, Infrastructure Management</li> </ul>	2

## 5 BLOOM'S TAXONOMY REFERENCE

Bloom's Learning Index	Description
1	Remembering: Recall or retrieve previous learned information.
2	Understanding: Comprehending the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words.
3	Applying: Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the workplace.
4	Analysing: Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.
5	Evaluating: Make judgments about the value of ideas or materials.
6	Creating: Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure.

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