

ABS | Centre for Digital Banking | Professional Certification

INFORMS

Certified Analytics Professional & Associate Certified Analytics Professional

- Portable credential for new analytics professionals
- Global accessibility through computer-based testing
- Renewable every three years with professional development units
- Vendor and software neutral: sponsored by INFORMS, a neutral party
- Created by teams of subject matter experts from the practice, academic and government environment



INFORMS

Certified Analytics Professional & Associate Certified Analytics Professional

The Certified Analytics Professional (CAP®) was developed in the year 2013 and is the premier global professional certification for analytics practitioners. It was launched by the Institute for Operation Research and Management Sciences (INFORMS), the first to develop a professional certification programme in the field of analytics. Those who meet the CAP® high standards and pass the rigorous exam distinguish themselves, providing greater opportunities to enrich their careers. For organisations seeking to enhance their ability to transform complex data into valuable insights and actions, CAP® provides a trusted means to train and certify their talent in analytics, and identify those with the most potential to be practitioners.

Earning the CAP® credential requires meeting eligibility requirements for experience and education, effective mastering of soft skills, committing to the CAP® Code of Ethics and passing the CAP® exam. Once the application to become a CAP® has been submitted and reviewed, the participant will be able to take the exam administered online at the appointed test centre.

CAP® examines the knowledge of a person across seven domains with preparation for both aCAP® and CAP® the same. The domains are:

1. Business Problem Framing
2. Analytical Problem Framing
3. Data
4. Methodology Approach
5. Model Building
6. Deployment
7. Life Cycle Management

The high-level programme content (project-based approach) covering the required body of knowledge is:

- Business & Analytics Problem Framing
- Statistical Data Analysis
- Analytics Methodology
- Preparation for CAP® exam

The Associate Certified Analytics Professional (aCAP®) designation connotes an entry-level analytics professional that may not have experience in practice yet and is at the beginning of a career pathway that leads to the elite CAP® designation. Fresh graduates are encouraged to apply for this. Meanwhile, CAP® is for those with minimum five years working experience in programming. The validation period for the CAP® designation is for three years and must be renewed after that.

The Multimedia University (MMU) is the INFORMS® recognised analytics education provider for the CAP® Programme. The Asian Banking School is pleased to be collaborating with MMU on this prestigious professional certification programme to provide a new legion of analytics practitioners to be among the ranks of talent in financial organisations heading towards digital transformation.



OVERVIEW

This course consists of two major parts. In the first part called Business Problem Framing, participants will learn how to determine business problems, identify stakeholders, and determine if the problem has an analytic solution.

In the second part of the course called Analytics Problem Framing, participants will learn how to translate a business problem statement into an analytic problem and define key metrics of success.

PREREQUISITE

Participants are expected to have knowledge of at least one product or service in their respective line of business.

BENEFITS

Participants will be able to:

- ➔ Construct the problem statement and usability requirements.
- ➔ Identify stakeholders.
- ➔ Determine whether a problem is amenable to an analytic solution.
- ➔ Translate a business problem statement into an analytic problem formulation.
- ➔ Define key metrics of success.



DURATION
2 DAYS

DOMAIN ONE

Business Problem Framing

The topics covered under this section include:

- Receive and refine the business problem
- Identify stakeholders
- Determine whether the problem is amenable to an analytics solution
- Refine problem statement and delineate constraints
- Define an initial set of business benefits
- Obtain stakeholder agreement on the problem statement

DOMAIN TWO

Analytical Problem Framing

The topics covered under this section include:

- Reformulating the business problem statement as an analytics problem
- Develop a proposed set of drivers and relationship to outputs
- Set of assumptions related to the problem
- Define the key metrics of success
- Obtain stakeholder agreement

Statistical Data Analysis

(Certified Analytics Professional – Domain 3)

OVERVIEW

This course teaches participants statistical techniques for data exploration and analysis. Participants will use appropriate tools to analyse different types of variables.



BENEFITS

Participants will be able to:

- ➔ Interpret numerical and graphical summaries of univariate and multivariate data.
- ➔ Apply appropriate test of hypothesis and interpret results correctly.
- ➔ Identify associations between variables.

✓ PREREQUISITE

Participants are required to have basic knowledge of statistics.

DURATION
2 DAYS

DOMAIN THREE Data

The topics covered under this section include:

- Identify and prioritise data needs and sources
- Acquisition of data
- Harmonise, rescale, clean and share data
- Identify relationships in data
- Documenting and reporting findings
- Refining the business and analytics problem statements



OVERVIEW

This course will first teach participants to select appropriate data mining techniques given an analytic problem. It then walks the participants through the key steps of an analytic model lifecycle that includes building and deploying the solution.

PREREQUISITE

Participants are required to have basic knowledge of statistics and programming.

BENEFITS

Participants will be able to:

- ➔ Select suitable software tools and data mining techniques for a given problem.
- ➔ Implement the selected algorithms to build models, and then evaluate and calibrate the models.
- ➔ Create model, usability and system requirements for deployment.
- ➔ Track model quality and recalibrate the model.



DURATION
6 DAYS

DOMAIN FOUR Methodology (Approach) Selection

The topics covered under this section include:

- Identify tools for problem solving
- Select software tools
- Test methods
- Select methods

DOMAIN SIX Deployment

The topics covered under this section include:

- Business validation of model
- Deliver report
- Create model, usability and system requirement
- Deliver and support production model/system

DOMAIN FIVE Model Building

The topics covered under this section include:

- Identify model structures
- Run evaluate and calibrate models
- Integrate models
- Document findings

DOMAIN SEVEN Life Cycle Management

The topics covered under this section include:

- Document initial structure
- Track model quality
- Recalibrate and maintain model
- Support training
- Evaluate model over time

Certified Analytics Professional Preparation Course

OVERVIEW

This course prepares the participants to take the CAP / aCAP exam. It elucidates the key components of the exam. Participants will attempt sample exam questions.



BENEFITS

Participants will be able to:

- ➔ Select suitable software tools and data mining techniques for a given problem.



PREREQUISITE

Participants must have completed all three pre-requisite courses.



DURATION
1 DAY

EXAM PREP

The topics covered under this section include:

- Exam format
- Sample questions
- Additional resources

What are the prerequisites for the course?

INFORMS Associate Certified Analytics Professional (aCAP®) - for entry-level analytics professionals that may not have the practical work experience yet. Fresh graduates are encouraged to apply.

INFORMS Certified Analytics Professional (CAP®) - for those with minimum five years working experience in programming.

The validation period for the CAP® certification is three years and must be renewed after that.

How long does it take to complete the course?

- Business & Analytics Problem Framing [2 days]
- Statistical Data Analysis [2 days]
- Analytics Methodology [6 days]
- Preparation for CAP® exam [1 day]

Where will the course and exam be held?

The venue for the entire programme and the exam centre will be at MMU Cyberjaya. Of course, this could change in time so it is best to check with the Asian Banking School for latest updates.

What is the training methodology?

The programme consists of classroom lectures, active participation, laboratory assignments and business case studies.

Who should attend this course?

Project Managers, Manpower Planners, System and Network Engineers and Administrators, Database Administrators, IT Managers, Software Developers, Digital Campaign and Social Media Personnel, Brand and Engagement Personnel, Data Analysts, CRM Analysts, Customer Insights Personnel, Customer Analysts and those who make key decisions on organisational goals and strategies, as well as anyone interested in developing their skills in analytics.

What is CAP?

CAP was developed in 2013. It was launched by the Institute for Operation Research and Management Sciences (INFORMS), who were the first to develop a professional certification programme in the field of analytics. CAP is a professional certificate issued for individuals with business analytics experience and sets global standards for analytics professionals. It examines the knowledge of a person across seven domains. MMU is the INFORMS® recognised analytics education provider for CAP® with ABS being its collaborative partner to deliver the programme to the banking industry.

Who is INFORMS?

INFORMS is the leading international association for professionals in operation research and analytics – CAP and ACAP is thus recognised worldwide as the premier vendor and software neutral professional certification for analytics professional.

Who recognises INFORMS CAP and ACAP?

The certification is recognised worldwide, which is a huge competitive advantage in today's multi-national banking and financial industry. In fact, 20% of Fortune 100 companies employ at least one person with a CAP certification; with CAP certified employees found in over 200 companies in more than 20 countries across the globe.

ABOUT ABS

The ASIAN BANKING SCHOOL (ABS) is dedicated to developing talent and is the largest specialised provider of quality banking training programmes in the ASEAN region.

As one of the industry's preferred partners in learning and development, ABS offers industry relevant training programmes that cover a comprehensive list of banking areas that are designed and developed in-house by our Specialist Training Consultancy Team or in collaboration with strategic learning partners that includes some of the top business schools in the world. It also provides specialised consulting services and tailored learning solutions to meet the specific needs of its clients.

Through its sector-leading customised and open enrolment Executive Education programmes including the ground-breaking Global Banking Leaders Programme with Cass Business School, City, University of London, as well as the Emerging Banking Leaders and Summer School Programmes with the University of Cambridge Judge Business School, ABS equips banks and its senior executives with the right knowledge to take them up and move them forward.

ABS works closely with the Asian Institute of Chartered Bankers in raising competency standards for the banking industry through the delivery of training workshops related to professional qualifications developed and awarded by the professional body. It is also the exclusive training partner for the Chartered Banker Institute in the UK.

ABS also plays a significant role in enriching the talent pipeline for the financial services sector through the industry recognised Financial Sector Talent Enrichment Programme (FSTEP) and Graduate Training programmes. It is also responsible for designing, developing and delivering the industry-wide Ethics and AML/CFT programmes.

ABOUT MMU



Multimedia University (MMU) was established in July 1996. It is a subsidiary of Telekom Malaysia Berhad (TM), Malaysia's broadband champion and leading integrated information and communications group. Originally known as Universiti Telekom and located in Melaka, the university's current name took hold in March 1997, when Telekom Malaysia was given the enormous task of establishing a new campus in Cyberjaya that would supply the Multimedia Super Corridor (MSC) with superior quality knowledge workers. In 2014, MMU completed its third campus MMU Nusajaya in EduCity Iskandar, Nusajaya, Johor. The university now hosts 18,000 undergraduate and postgraduate students, more than 1,700 of whom are expatriates from about 70 countries.

MMU is one of Malaysia's leading private universities and was listed in the Top 200 of the Quacquarelli Symonds (QS) World University Rankings by Subject 2015 in Electrical and Electronic Engineering. This achievement was another significant milestone for MMU as this was the third subject to be ranked in the Top 200 of the World rankings. The other two subjects are Communication and Media Studies and Computer Science and Information Systems (CS&IS) which made the top 200 in 2012 and 2014, respectively. Based on the achievement by Asian universities in the QS World University Rankings by Subject 2015, MMU was ranked at the top 61 and top 60 in Asia respectively for E&E and CSIS.

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