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EUCIP

European Certification of
Informatics Professionals

EUCIP Business Analyst

Elective Level Profile Specification

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Short Description

A EUCIP Business Analyst is expected to be very effective in understanding business cases, eliciting requirements, modelling business processes and identifying the appropriate type of ICT solutions. For this role, a high level professional attitude and the ability to communicate are as vital as a wide and thorough ICT competence.

This profile requires a minimum work experience of **60** months in a compatible job role; if this requirement is not fulfilled, the candidate might be certified as an **Associate** Business Analyst.

Tasks Overview

According to the scope of the tasks assigned by the management, identifies and envisions business improvement opportunities, presents project proposals and/or reviews them in terms of balance between benefits, costs and risks.

Identifies the organisational structure, undertaking and supporting the business activities.

Identifies cultural, organisational and business constraints affecting options for change, and supports the importance of corporate values and standards.

Establishes an understanding of business aims and develops alternative processes to achieve them.

Assesses the risks, costs and potential benefits of alternative business process designs.

Directly contributes to innovation by participating in programmes and projects for the enhancement of information systems and organisational performance.

Works within client organisation (either as an employee or as an external provider) to map out and streamline business processes, functions, procedures and workflows through consistent modelling techniques.

Collects and formalises requirements expressed by managers, process owners and operational users of the information system, assesses the primary needs and evaluates the viability of possible improvements.

Reports on alternative scenarios and on organisational and economic feasibility of various business cases.

Produces high quality documents and written reports, describing organisational and/or technical topics in a clear and concise style.

Communicates with ICT staff to assess the effectiveness of automated information flows, the efficiency of existing solutions (in terms of ICT equipment, processing and communication capacity, data structures, objects, algorithms, business logic, etc.) and the technical feasibility of proposed new solutions.

Advises the organisation on the innovative use of ICT/IS for business information and process improvement, and highlights best practices in similar/relevant industries.

Plans and manages effective communication sessions (i.e. various types of formal and informal meetings, training, presentations, demonstrations, brainstorming etc.) showing strong relational skills, goal-orientation, a problem solving attitude and a full mastery of business communication techniques.

Assists clients/users in defining both service levels and acceptance tests for automated systems, and takes full responsibility for proper quality assessments.

Essential Behavioural Skills [4]¹

The Business Analyst role requires a good general knowledge, a strong will to learn, excellent oral and written expression, and a very wide range of more specific behavioural skills.

Attention to the client, interaction, ability to collect information, plus keen organisational and commercial sensitivity are required to understand quickly the client's needs.

Strategic vision, analytical and synthetic intelligence, imagination and proactivity are required to formulate and validate solutions.

A persistent goal-driven approach, flexibility, determination, planning and control aptitude, teambuilding and leadership are required to achieve actual results.

¹ numbers in brackets represent EUCIP points

Detailed Skills Required

Deep competence level [16,5]

A1.01 Business activity and business process modelling [2,5]

- Understand the Rationale for Business Activity Modelling.
- Perform Internal Environment Analysis (e.g. MOST).
- Perform External Environment Analysis (e.g. PESTLE).
- Use SWOT Analysis.
- Perform Business Viewpoint Analysis.
- Define Business Activities for an organisation.
- Define CSFs and KPIs for a business change.
- Formalise Business Rules within an organisational unit.
- Define Information Support needed for the defined activities.
- Perform conflict resolution between perspectives.
- Create Rich Pictures to describe a business scenario.
- Utilise the Soft Systems Approach to developing an Information System.
- Evaluate alternative ways of modelling business processes; e.g. Data Flow Diagrams, Process Hierarchy Diagrams, Process Dependency, Event Models.
- Conform to the syntax of business process modelling.
- Document Information flows (sources, destinations).

A2.01 Information Systems in the business environment [1,5]

- Explain the nature of Management Information in the planning and control of organisations.
- Define the strategic role of Information Systems (IS).
- Demonstrate a detailed understanding of common business functions.
- Describe why an IS Strategy is needed.
- Contribute to the development of an IS Strategy.
- Relate IS Strategy to Business Strategy.

A1.02 Requirements engineering [2]

- Distinguish between Functional and Non-Functional requirements.
- Use What, Why, How questioning to elicit requirements.
- Differentiate between requirements and project constraints.
- Identify the Actors in the Requirements Management process: Domain Expert, End User, Requirements Engineer, and Developer.
- Perform requirements elicitation.
- Perform Problem and Business understanding activities.
- Understand the needs and constraints of stakeholders.
- Use Creative thinking and related techniques (e.g. interviews and scenarios, observation, prototyping, workshops, generic requirements for industry sector).
- Prioritise Requirements (e.g. 80/20, MoSCoW, Needs and Musts).
- Resolve overlapping requirements.
- Judge whether a problem is a cause or symptom.
- Resolve conflicting requirements.

- Reduce ambiguity of requirements .
- Ensure Testability of requirements.
- Support requirements validation via reviews and prototyping.
- Achieve Requirement Refinement.
- Manage the requirements definition process.
- Differentiate between stable and volatile requirements.
- Apply versioning principles to requirements documents.
- Establish traceability and ownership of requirements.
- Use CASE Tools for requirements management.
- Act as an effective member of a team involved in eliciting and recording user requirements for an Information System.
- Apply a range of elicitation techniques effectively.

A1.03 Organisational strategies and related IT system selection [1,5]

- Classify organisations based on their type, internal structure, legal status etc.
- Evaluate the role IT plays in different types of organisation.
- Evaluate the impact of different organisational structures on the management of IT.
- Evaluate Corporate Mission Statements and their IT implications.
- Build a business plan for a particular organisation.
- Evaluate the major techniques for building a business strategy.
- Involve functional managers and key users to identify the key business needs
- Propose new technical & organizational tools to improve office automation and productivity (e-mail, document/content management, cooperative workflow with external partners)
- Identify IT solutions for factory automation
- Outline the IT needed to deliver a given business plan.
- Select a portfolio of computer support tools for management of an organisation.
- Contribute to an overall strategy for leveraging of organisational knowledge, memory and learning.
- Use well-known decision making and problem solving techniques.
- Select suitable Management Information Systems (MIS) software for an organisation.
- Evaluate the usefulness of different IT-based workflow systems.
- Compare the effectiveness of virtual team working and physically co-located team working.
- Establish a collaborative structure, using relevant technology.
- Evaluate implementations of collaborative technologies.
- Evaluate the link between an IT strategy and the business strategy.
- Design appropriate matches between organisational need and IT provision.
- Identify the strengths and weaknesses of MIS, On-line Transaction Processing (OLTP) and related system types.
- Contribute to the specification of a Data Warehousing system to support Business Intelligence (analytics) users.

A3.02 IT organisational structure and measuring business benefits [1,5]

- Evaluate organisational structures for developing and maintaining Information Systems.
- Propose new IT professional skills to meet emerging business or technological requirements.
- Identify responsibilities to comply to emerging needs (e.g. Governance, Security, Media Convergence, Knowledge Management, etc.).
- Evaluate the “End User Computing” model of development.
- Evaluate the success of Human Resource policies in terms of retention, professional development and recruitment of IS staff.
- Evaluate the effectiveness of Total Quality Management within an IT organisation.
- Propose risk management approaches to risk reduction in the area of quality of IT solutions.
- Implement standard approaches to monitoring and evaluation of IT investments.
- Use TCO as a mechanism for evaluating business benefits.
- Produce outline project plans and business cases (with costs).
- Apply stakeholder analysis to an organisational scenario.
- Produce an Economic Feasibility study for a business project.
- Validate (from the business perspective) a technical feasibility study for a project.
- Produce an Organisational Feasibility study for a business scenario.
- Produce a cost benefit analysis for a business scenario.
- Evaluate an approach used to judge the business value of information and IT.
- Produce a budget for a business scenario, showing typical operational and capital costs.
- Distinguish between tangible and intangible benefits from an IT system, giving examples of each type.
- Use ROI analysis to judge the effectiveness of an IT solution to a business problem.
- Compare and contrast the major methods for evaluation of IT investment.
- Apply standard approaches to benefits management.

A6.01 Managing business change [1,5]

- Develop a communication plan to facilitate organizational changes
- Foster innovation by an appropriate evaluation system for IT staff
- Promote training to facilitate the change
- Identify organizational and technological drivers of resistance to change
- Understand human behaviour and its impact on business change
- Create a plan to overcome resistance to change from the business, including “selling” the benefits of new technology
- Make effective use of Audio-Visual tools in making the case for change within an organisation
- Explain to non-IT staff the role of IT in achieving corporate aims, and its place within the organisation
- Ensure that the case for change is presented effectively, using modern delivery techniques

- Evaluate the Impact of an IT solution on the Business, its Customers/Suppliers, Staff, Internal processes etc
- Select between Programmes and Projects for Business Change
- Organise the delivery of user training for both new business processes and the use of any underpinning ICT services
- Control the interfaces between Business Change projects and enabling IT projects
- Identify cultural, organisational and business constraints affecting options for change
- Establish an understanding of business aims and develop alternative processes to achieve them
- Assess the risks, costs and potential benefits of alternative business process designs.

A3.01 Accounting and financial management [2]

- Use basic accounting concepts and terminology; e.g. capital, accounts, cash flow, financial cycle, profit/loss, balance sheet.
- Understand the need for management accounting.
- Appreciate differing types of cost and methods of costing.
- Understand the principles of budgeting.
- Measure Business Performance using well known approaches; e.g. turnover/profit, investment appraisal, key financial performance ratios (e.g. ROCE, liquidity).

A4.01 New technology opportunities and the matching of these to business needs [4]

- Analyse business processes and compare them against alternative solutions proposed by standard software packages (“best practice” approach).
- Evaluate various options for the “virtual organisation” within a business scenario.
- Establish a business case for moving from a “segregated” sales and marketing strategy to the “unique customer” approach in a given organisation.
- Produce a report on the effects of globalisation for an organisation.
- Evaluate the Internet as a tool for creating new opportunities for an organisation.
- Evaluate extranets as a tool for achieving efficiencies in customer/supplier interaction.
- Produce an impact analysis for an organisation related to the increased use of e-business mechanisms.
- Evaluate a project which used IT as the enabler for a significant business change.
- Produce a report documenting the major features of Customer Relationship Management tools.
- Compare the features offered by two major Supply Chain Management packages.
- Evaluate the case for using Enterprise Resource Planning tools for a given business scenario.
- Compare the strengths and weaknesses (from a business viewpoint) of developments in IT technical architectures (e.g. web based vs. “2 tier” client server).

- Evaluate the case for using Document Management systems.

Incisive competence level [11,5]

B2.01 Information modelling techniques and tools [1]

- Investigate existing systems and define elements of logical data design for required systems.
- Contribute to schema definition for a given business scenario.
- Use both top-down and bottom-up modelling of data.
- Understand the concepts of entity relationship modelling.
- Use entity relationship modelling or class modelling to outline the information requirements of a new business system.
- Use recognised entity modelling techniques to construct a data model reflecting the business needs of an organisation.
- Contribute to data key identification and design.
- Assist in the creation of a Data Catalogue.
- Validate data models from a business processing perspective.
- Specify the requirements for security and integrity of data in a business scenario; requirements should cover integrity, loss of data consistency, logical errors, system errors, hardware failures, human error.

B1.01 System development lifecycles [1,5]

- Understand the differences between Business Analysis, Systems Analysis and Systems Design.
- Investigate and document an existing system.
- Produce a requirements definition for a business system.
- Create Business System Options and present them to the business.
- Identify tasks/disciplines involved in management of systems development.
- Justify the use of a specific systems methodology.
- Use relevant (to Business and Systems Analysis) development techniques.
- Explain the lifecycle of a project to business users.
- Use formal approaches for ensuring best practice in the System Development process.
- Understand the rationale for a particular Systems Development (SD) method and where it is used.
- Appreciate the scope and limitations of SD method in the project lifecycle.
- Understand and work within a standard development framework (e.g. SSADM).
- Appreciate the need for specific techniques in the SD process.
- Evaluate the suitability of differing system development approaches for a particular project scenario.
- Harmonise roles and responsibilities of the various specialists in each of the main lifecycles for system development.
- Use well known approaches to providing detailed SD Lifecycle products, e.g. textual, diagrams, prototypes.

- Create different modelling views of a business system (e.g. static data, behaviour, user centred, process).

A4.02 Package selection and implementation lifecycle [1]

- Define a framework for effective package selection.
- Identify, investigate and assess potential package suppliers.
- Evaluate a software package against defined requirements.
- Present recommendations concerning the “fit” of the software package to agreed functional and non-functional requirements.
- Evaluate the advantages and disadvantages of the package approach.
- Evaluate the human, technical and financial implications of a decision to outsource development/buy a package solution.
- Apply a checklist of factors to a decision on in-house development vs. package procurement.
- Work within a framework for package selection.
- Understand the impact on package selection of Prototyping approaches.
- Acquire an understanding of the software package market in a particular business context.
- Produce a High Level Functional Model for a system.
- Contribute to identifying potential package suppliers.
- Contribute to the production of Invitations to Tender (ITTs) and questionnaires.
- Investigate suppliers.
- Assist in the creation of Supply Contracts and Support Agreements.
- Perform cost comparisons – purchase and support.
- Document the functional match of a package solution.
- Contribute to gap analysis for a package selection.
- Use a weighted scorecard approach to evaluation.
- Present the recommendation for a specific package solution.
- Assist in the implementation of packages.
- Liaise with procurement staff for package purchase.
- Define the modified business processes required in a package solution.
- Appreciate the issues with tailoring the package software.
- Contribute to long term supplier management.
- Appreciate the advantages/disadvantages of packages.

B1.02 User centred analysis and development [1]

- Analyse and contribute to the design of Information Systems which reflect the way users wish to work to support their business.
- Perform user analysis and establish usability criteria, which can be used to measure the success of new systems.
- Model business tasks and use these models as a basis for prototyping and user interface design.
- Use User Analysis, Work Practice Models, Task Modelling, Job Design, or equivalent techniques.
- Appreciate the role of User Centred techniques in System Development.

- Perform Work Practice Modelling using concepts such as actor, task, business event, task scenario, user role, user class, user object, common subtask.
- Map Business Activities onto the organisational structure.
- Create required task models, plans and scenarios.
- Contribute to identifying and specifying task-supporting IT software functions.

B1.03 RAD approaches to the system development lifecycle [1]

- Understand key features of Rapid Application Development (prototyping, iteration, incremental development/delivery, user involvement, empowerment, timeboxing, and prioritisation).
- Apply key principles and Critical Success Factors for RAD projects.
- Define the actors in a RAD project.
- Understand the SD Lifecycle for a RAD approach.
- Work within a standard RAD framework (e.g. DSDM).
- Evaluate Prototyping Approaches and Opportunities.
- Appreciate the different types/purposes of Prototyping.
- Perform business and IS Modelling in RAD projects.
- Use Facilitation skills and obtain consensus.
- Contribute to testing in RAD projects.
- Assist the Project Manager in managing RAD risks.
- Contribute to Estimating and Timeboxing Management in RAD.
- Define the principles, advantages and disadvantages of the RAD approach.
- Describe different approaches to prototyping and explain where each approach might be applied.
- Identify key factors in the success of a Facilitated Workshop.
- Describe a framework for managing a RAD team.
- Contribute effectively to a RAD team.
- Identify appropriate applications for the RAD approach within an organisation.

B3.05 Principles of testing [1,5]

- Explain the principles of Testing.
- Maintain the importance of Testing in the Lifecycle.
- Understand Dynamic Test Techniques.
- Apply Test Management Standards.
- Use Static Testing Techniques.
- Understand core testing terminology (e.g. Expected Results, Expected Information).
- Appreciate the economics of Testing.
- Perform High Level Test Planning.
- Organise User Acceptance Testing (UAT).
- Ensure Functional and Non-Functional UAT is completed.
- Contribute to Dynamic Testing (Black Box).
- Contribute to Test Management (e.g. organisation, estimating, resourcing).

A5.02 Estimating for system development [1]

- Use a variety of estimating approaches and apply them to a practical project.

- Understand the importance of estimating and measurement.
- Distinguish between top-down and bottom-up estimating.
- Contribute to “estimating by analogy”.
- Contribute to Delphi estimating.
- Contribute to estimating by the analysis percentage effort method.
- Appreciate the principles of Function Point Analysis (FPA).
- Contribute to FPA estimates by using formal counting rules.
- Assist in defining effort estimates and elapsed duration estimates.
- Appreciate the use of Line Count Cost Models.
- Contribute to building Work Breakdown structures and hence estimating for software development projects.
- Appreciate the impact of timeboxing and RAD on estimating.
- Evaluate the factors affecting productivity in IS development.
- Contribute to collecting and analysing project statistics/metrics.
- Contribute to the use of metrics to improve project estimation.

C7.01 IT service delivery [1]

- Contribute to the creation, via cost-based negotiation, of Service Level Agreements by stating business quality requirements for the specified service.
- Contribute to the organisational Capacity Plan by eliciting predictions of service usage (both existing and planned).
- Contribute to the Business Continuity Plan for an organisation, by specifying threats to and the recovery needs of each service offered by the organisation to its customers.
- Evaluate risk reduction and contingency options prepared by Service Management staff within an organisation.
- Contribute to Continuous Service Improvement plans on behalf of the business.
- Evaluate the various options for Service Desk support suggested by IT Service Management.
- Ensure full support for new services is in place before system implementation is completed.
- Liaise with Service Management staff over the technical impact of requested business changes to existing services.
- Contribute to business impact analysis of all requests for change to a service.
- Assist the business in specifying requests for change to existing services (using ITIL[®] standards or equivalent).

B1.04 Tools and techniques for development, testing and implementation of IT systems [1]

- Use system development tools for business modelling, requirements management and acceptance testing.
- Use relevant tools for automated testing (e.g. CAST).
- Use tools to support systems implementation and testing (e.g. rollout tools).
- Use relevant tools to perform security code review.
- Take responsibility for "end user" training and support documentation.
- Collaborate with Service Management to establish a user support structure (e.g. IT Service Desk).

A5.01 Project Management essentials [1,5]

- Define the role of the various specialists in a typical project organisation structure (e.g. Rational Unified Process, PRINCE2, etc.).
- Contribute to the IS project plan for a given business scenario.
- Contribute to risk analysis of a project proposal, concentrating on business risk.
- Use standard approaches to evaluate a project plan from the business viewpoint.
- Assist in defining the phases within a project and the role of the business analyst in those phases.
- Assist in the creation of constraints and the definition of milestones, checkpoints and reviews for a project.
- Define Corporate Standards for the documentation of business analysis deliverables in a project.
- Contribute to quality assurance processes within a project, from a business perspective.

External references to SFIA[®] version 3 by the SFIA Foundation

Skill 34: Business analysis

“The methodical investigation, analysis, review and documentation of all or part of a business in terms of business functions and processes, the information used and the data on which the information is based. The definition of requirements for improving any aspect of the processes and systems and quantification of potential business benefits. The creation of viable specifications and acceptance criteria in preparation for the construction of information and communication systems.”

Levels 4 and 5

Skill 6: Business Process Improvement

“The identification of new and alternative approaches to performing business activities. The analysis of business processes, including recognition of the potential for automation of the processes, assessment of the costs and potential benefits of the new approaches considered and, where appropriate, management of change and assistance with implementation.”

Level 5

Skill 2: Consultancy

“The provision of advice, assistance and leadership in any area associated with the planning, procurement, provision, delivery, management, maintenance or effective use of information systems and their environments. The consultancy can deal with one specific aspect of IT and the business, or it can be wide ranging and address strategic business issues.”

Level 5

External references to AITTS by the German Government – Arbeitsprozessorientierten Weiterbildung in der IT-Branche

Profil 3.1: Business Systems Advisor (Anwendungssystemberater/in)

“Der Business Systems Advisor analysiert und optimiert in enger Kooperation mit dem IT Business Consultant Geschäftsprozesse. Dabei wirkt er an der Konzeption von geschäftsprozessunterstützenden Unternehmensanwendungen mit und begleitet den notwendigen Einführungsprozess der ausgewählten Unternehmensanwendungen. Bei diesem Curriculum für die arbeitsprozessorientierte Weiterbildung zum Business Systems Advisor handelt es sich um ein Spezialistenprofil, dessen Tätigkeits- und Kompetenzfelder anhand eines Praxisprojekts in einem klein- und mittelständischen Unternehmen (KMU) erhoben wurden und das somit beispielhaft und repräsentativ für diese Unternehmensgröße sind. Daher wird an dieser Stelle explizit darauf hingewiesen, dass die Tätigkeits- und Kompetenzfelder sowie die zugehörigen Transferprozesse für den Business Systems Advisor in großen Unternehmen – mit entsprechend größeren Projektvolumina – von den nachfolgenden Beschreibungen im Detail abweichen können.”

External references to Nomenclature 2005 by CIGREF (club informatique des grandes entreprises françaises)

Métier 1.1: Consultant en systèmes d’information

“Il anticipe et fait mûrir les nouveaux projets par une sensibilisation à l’apport des technologies nouvelles et une analyse prospective des processus métiers. Il assiste la maîtrise d’ouvrage pour la définition des besoins et des solutions à mettre en œuvre, dans un souci de meilleure intégration dans le système d’information d’entreprise.”