



REPUBLIC OF KENYA

NATIONAL OCCUPATIONAL STANDARD

FOR

ANALYTICAL CHEMISTRY TECHNICIAN

KNQF LEVEL 6

OCCUPATION STANDARD ISCED CODE: 0531 554A

APPLY ENTREPRENEURIAL SKILLS

ISCED UNIT CODE: 0413 541 04A

TVET CDACC UNIT CODE: ASC/OS/ACHEM/BC/04/6/MA

UNIT DESCRIPTION

This unit covers the competencies required to demonstrate an understanding of entrepreneurship. It involves demonstrating an understanding of financial literacy, applying entrepreneurial concepts identifying entrepreneurship opportunities, applying business legal aspects, developing business innovative strategies, and developing business plans.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT These describe the key outcomes that make up workplace function.	PERFORMANCE CRITERIA These are assessable statements that specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in Range</i>
1. Apply Financial Literacy Skills	1.1 <i>Sources of personal and business funds</i> are identified as per financial procedures and standards 1.2 Personal finances are managed as per financial procedures and standards 1.3 Savings are managed as per financial procedures and standards 1.4 Debts are managed as per financial procedures and standards 1.5 Investments are undertaken as per financial procedures and standards 1.6 Insurance services are procured as per financial procedures and standards

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<p>2. Apply entrepreneurial concept</p>	<p>2.1 Entrepreneurs and Business persons are distinguished as per principles of entrepreneurship</p> <p>2.2 <i>Types of entrepreneurs</i> are identified as per principles of entrepreneurship</p> <p>2.3 Ways of becoming an entrepreneur are identified as per principles of Entrepreneurship</p> <p>2.4 <i>Characteristics of Entrepreneurs</i> are identified as per principles of Entrepreneurship</p> <p>2.5 Salaried employment and self-employment are distinguished as per principles of entrepreneurship</p> <p>2.6 <i>Requirements for entry into self-employment</i> are identified according to business procedures and standards</p> <p>2.7 Roles of an Entrepreneur in an enterprise are determined according to business procedures and standards</p> <p>2.8 <i>Contributions of entrepreneurship</i> to National development are identified as per business procedures and standards</p>
<p>3. Identify entrepreneurial opportunities</p>	<p>3.1 Business ideas are identified as per business procedures and standards</p> <p>3.2 Factors to consider when evaluating business opportunity viability are explored based on business procedure and standards</p>

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	<p>3.3 Entrepreneurial opportunities are evaluated as per business procedures and standards</p> <p>3.4 Business ideas and opportunities are generated as per business procedures and standards</p> <p>3.5 Business life cycle is analysed as per business procedures and standards.</p>
<p>4. Apply business legal aspects</p>	<p>4.1 <i>Forms of business ownership</i> are identified as per legal procedures and practices</p> <p>4.2 Business Registration and Licensing processes are identified as per legal procedures and practices</p> <p>4.3 Types of Contracts and Agreements are analysed as per legal procedures and practices</p> <p>4.4 Employment Laws are identified as per legal procedures and practices</p> <p>4.5 Taxation laws are identified as per legal procedures and practices</p>
<p>5. Innovate Business strategies</p>	<p>5.1 Business innovation strategies are determined by the organization standards</p> <p>5.2 Creativity in business development is demonstrated in accordance with business standards</p> <p>5.3 <i>Innovative business standards</i> are developed as per business principles</p>

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These describe the key outcomes that make up workplace function.	<p>These are assessable statements that specify the required level of performance for each of the elements.</p> <p><i>Bold and italicized terms are elaborated in Range</i></p>
	<p>5.4 Linkages with other entrepreneurs are created as per best practice</p> <p>5.5 ICT is incorporated in business growth and development as per best practice</p>
6. Develop Business Plan	<p>6.1 Business idea is described as per business procedures and standards</p> <p>6.2 Business description is developed as per business plan format</p> <p>6.3 Marketing plan is developed as per business plan format</p> <p>6.4 Organizational/Management plan is prepared in accordance with business plan format</p> <p>6.5 Production/operation plan is prepared in accordance with business plan format</p> <p>6.6 Financial plan is prepared in accordance with the business plan format</p> <p>6.7 Executive summary is prepared in accordance with business plan format</p> <p>6.8 Business plan is presented as per best practice</p> <p>6.9 Business ideas are incubated as per institutional policy.</p>

RANGE

This section provides work environment and conditions to which the performance criteria apply. It allows for different work environment and situations that will affect performance.

Variable	Range
1. Sources of personal funds may include but not limited to:	<ul style="list-style-type: none">• Salary/Wages• Investments• Savings• Inheritance• Government Benefits.
2. Sources of business finance may include but not limited to:	<ul style="list-style-type: none">• Equity Financing• Debt Financing,• Personal Savings/Investment• Retained Earnings• Grants and Subsidies• Crowdfunding• supplier Credit:• Leasing and Asset Financing:
3. Types of entrepreneurs may include but not limited to:	<ul style="list-style-type: none">• Innovators• Imitators• Craft• Opportunistic• Speculators
4. Characteristics of Entrepreneurs may include but not limited to:	<ul style="list-style-type: none">• Creative

Variable	Range
	<ul style="list-style-type: none"> • Innovative • Planner • Risk taker • Networker • Confident • Flexible • Persistent • Patient • Independent • Future oriented • Goal oriented
<p>5. Requirements for entry into self-employment may include but not limited to</p>	<ul style="list-style-type: none"> • Technical skills • Management skills • Entrepreneurial skills • Resources • Infrastructure
<p>6. Forms of businesses ownership may include but not limited to:</p>	<ul style="list-style-type: none"> • Sole proprietorship • Partnership • Limited companies • Cooperatives
<p>7. Innovative business standards may include but not limited to:</p>	<ul style="list-style-type: none"> • New products • New methods of production

Variable	Range
	<ul style="list-style-type: none"><li data-bbox="764 302 967 327">• New markets<li data-bbox="764 369 1101 394">• New sources of supplies<li data-bbox="764 436 1130 462">• Change in industrialization

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required Skills

The individual needs to demonstrate the following skills:

- Analytical
- Management
- Problem-solving
- Root-cause analysis
- Communication

Required Knowledge

The individual needs to demonstrate knowledge of:

- Decision making
- Business communication
- Change management
- Competition

- Risk
- Net working
- Time management
- Leadership
- Factors affecting entrepreneurship development
- Principles of Entrepreneurship
- Features and benefits of common operational practices, e.g., continuous improvement (kaizen), waste elimination,
- Conflict resolution
- Health, safety and environment (HSE) principles and requirements
- Customer care standards
- Basic financial management
- Business strategic planning
- Impact of change on individuals, groups and industries
- Government and regulatory processes
- Local and international market trends
- Product promotion standards
- Market and feasibility studies
- Government and regulatory processes
- Local and international business environment

- Relevant developments in other industries
- Regional/ County business expansion standards

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge and range.

<p>1. Critical Aspects of Competency</p>	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Identified Sources of personal and business finance as per financial procedures and standards 1.2 Managed Personal finances as per financial procedures and standards 1.3 Made Investment decisions as per financial procedures and standards 1.4 Generated Business ideas and opportunities based on business procedure and standards 1.5 Analysed business life cycle based on business procedure and standards 1.6 Determined business innovative standards as per business principles 1.7 Developed and presented a business plan as per regulatory framework.
<p>2. Resource Implications</p>	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 2.1 Access to relevant workplace where assessment can take place

	2.2 Appropriately simulated environment where assessment can take place
3. Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1 Written tests</p> <p>3.2 Oral questions</p> <p>3.3 Project Based Assessment</p> <p>3.4 Third party report</p> <p>3.5 Portfolio</p>
4. Context of Assessment	<p>Competency may be assessed:</p> <p>4.1 On-the-job</p> <p>4.2 In a simulated work environment</p>
5. Guidance information for assessment	5.1 Holistic assessment with other units relevant to the industry sector, workplace and job role are recommended.