| QUALIFICATION SPECIFICATION<br>SECTION A | | | | | | | |
|---|---|---|---|---|---|---|---|
| **QUALIFICATION DEVELOPER** | BOITEKANELO COLLEGE | | | | | | |
| **TITLE** | BACHELOR OF SCIENCE IN OCCUPATIONAL HEALTH & SAFETY | | | | **NCQF LEVEL** | 7 | |
| **FIELD** | HEALTH & SOCIAL SERVICES | **SUB-FIELD** | OCCUPATIONAL HEALTH & SAFETY | | | | |
| New qualification | X | Review of existing qualification | NO | | | | |
| **SUB-FRAMEWORK** | General Education | | TVET | | Higher Education | X | |
| **QUALIFICATION TYPE** | Certificate | | Diploma | | Bachelor | X | |
| | Bachelor Honours | | Master | | Doctor | | |
| **CREDIT VALUE** | | | | | **489 credits** | | |

## RATIONALE AND PURPOSE OF THE QUALIFICATION

Since Botswana gained independence in 1966, it has been rated one of the world's fastest growing economies, with a GDP growth rate of 5 to 6% every year. Robust growth was registered in 2013, underpinned by buoyant activity in the mining sector, particularly diamond production. Growth in the private sector has been approximately 10% per year over the past 30 years. The mining sector is the major contributor of national Gross Domestic Product (GDP), contributing approximately 40% of the GDP in 2006-2007.

The increase in industrialization is associated with increase in the occupational health and safety injuries and diseases leading to death and disabilities. It also contributes to loss of production due to absenteeism and economic burden due to compensations for work related incidents.

A report by Moyo, Zungu and Kgalamono (2015), reported that globally, access to occupational health and safety (OHS) by workers has remained at very low levels and implementation of OHS in South Africa, Zimbabwe, Zambia, and Botswana has remained at suboptimal levels. This has led to a major negative impact on improvement of workers' access to Occupational health and safety services due to inadequacy of human resource capital, training, and education in the field of OHS. However, South Africa, Zimbabwe, Zambia, and Botswana have expanding economies with active mining and agricultural activities that pose health and safety risks to the working population. The Author further state that Lack of specialized training in occupational health services has been a major drawback in Botswana. Injuries and diseases may lead to several outcomes including HIV, disability, deaths, lost working days, and financial costs (Lekgothoane, 2012).

In Botswana, approximately 1,000 work-related accidents result in more than three days' absence from work reported annually of which about 60% of these results in deaths (Ooteghem, 2013). The author also states that the prevalence of occupational incidents is underestimated due to unreported cases. Inadequacies in human resource capital and expertise in occupational health and safety are noted major constraints in the implementation and compliance to health and safety initiatives in the workplace.

Research by WHO, 2016 has demonstrated that workplace health initiatives can help reduce sick leave absenteeism by 27% and healthcare costs for companies by 26%. According to Levy; Wagner; Rest and Weeks (2005), Work can be hazardous, however, more importantly, most hazards can be anticipated, and prevented. The prevention of occupational diseases and injuries in the workplace helps the organizations to retain a healthy workforce therefore reducing mortality and morbidity associated with one's occupation.

According to the 2005 ILO audit report; most of safety practitioners and inspectors in the occupational health and safety division in Botswana are mainly environmental health officers, engineers and science graduates. The audit team made recommendations that the minimum acceptable qualification for safety inspectors should be a university education.

To strengthen the occupational health and safety services in Botswana, ILO strongly encourage Botswana to ratify the relevant conventions that would pave way for development of the National OHS policy and the overarching OHS legislation. Botswana has ratified only 15 conventions, including C176 which seeks to improve health and safety in the mining sector, but not in other economic activities. Therefore, there is a strong need for ratification of other relevant OHS conventions; no. 81, 129 and 155 which address safety and inspections in all economic activities. With more occupational health and safety practitioners and specialists in both the government and the private sector, it would help Botswana to comply with ILO recommendations and improve safety in all workplaces.

In order for Botswana to achieve the following Sustainable Development Goals (SDGs); Good health and Wellbeing for people, Clean water and sanitation, Decent work and economic growth, industry, innovation and infrastructure, Peace, justice and strong institutions, there is a need for more formal training in occupational health and safety; at undergraduate and post graduate levels.

The country's higher education institutions need to introduce programs in occupational Health and Safety, which will equip learners with adequate knowledge, skills and experience to address health and safety issues in the workplace. Most of the local institutions offer occupational health and safety at certificate and diploma levels, leaving graduates with nowhere to articulate into higher levels locally, hence the need to offer an undergraduate degree; BSc in Occupational Health & Safety.

HRDC (2016), listed Occupational health and Safety practitioners among the top occupations in demand especially in the mining sector.

The purpose of this qualification is to produce occupational health and safety practitioners who would be qualified and competent to perform functions in relation to the formulation and implementation of safety, health and environment policies in accordance with Botswana's Legislative framework, as well as regional and international best practice**.**

## ENTRY REQUIREMENTS (including access and inclusion)

To be eligible for admission for this Degree in Occupational Health and Safety program:

**Normal Entry**

- Potential candidates must have NCQF Level 4 qualification, e.g. BGCSE or equivalent, with a minimum of C in the following subjects: Biology, Chemistry, Physics and Mathematics or a BB in double Science, D in English as well as credit in any other subjects.

**Recognition of Prior Learning**

- Exemptions may be granted to Occupational health & safety diploma holders from recognized institutions who subsequently progress to degree. Once such exemption has been granted, the programme for which the student is currently registered will be credited with the original marks obtained for the credit course(s) and the corresponding grade points. Diploma holders once exempted will automatically start in third year semester one.

- Candidates who do not meet the above requirement but have BGSCE with at least 3 years of relevant work experience and a letter of support from their current employer may be considered.

- Mature entry requirements: Candidates should be 26 years or above and with 3 years relevant work experience

| **QUALIFICATION SPECIFICATION** **SECTION B** | |
|---|---|
| **GRADUATE PROFILE (LEARNING OUTCOMES)** | **ASSESSMENT CRITERIA** |
| Cultivate a positive safety culture in an organization to promote health and wellbeing<br><br>**Related Modules**<br><br>• Occupational psychology<br>• Human Resource Management<br>• Safety Principles and Practices I<br>• Safety Principles and Practices II<br>• Ethics & Professional behavior<br>• Safety Supervision and Leadership<br>• Occupational Records Management | • Describe a positive safety culture, and explain factors influencing workers' behaviors and attitudes towards safety in the workplace<br>• Demonstrate knowledge of safety culture maturity levels<br>• Explain roles of state, employers and employees in improvement of safety in the workplace<br>• Demonstrate sound knowledge of basic principles and practices in occupational health and safety<br>• Discuss the elements of a safety management system; input, process and output<br>• Demonstrate knowledge of good communication skills and professional behavior in the workplace<br>• Compare and contrast between the three types of safety leadership; Tough Controlling, Tough Cohesive and Tough Caring<br>• Explain performance management strategies for nurturing positive safety culture and improving productivity<br>• Discuss factors that would encourage, or factors that would prevent workers from reporting accidents and incidents<br>• Explain how worker's personal information should be handled |
| Interpret and Apply Occupational health and safety legislative instruments, Permissible Exposure Levels and SHEQ | • Demonstrate knowledge of Botswana, SADC and world occupational legislative requirements. |

| | |
|---|---|
| Management standards to ensure compliance and improve health & wellbeing<br><br>**Related Modules**<br><br>• Occupational Health and Safety Legislation<br>• Human resource management<br>• SHEQ Management Systems<br>• Occupational hygiene<br>• Chemical Safety management | • Participate in the critical discussion of current legislative pieces within the country and region<br><br>• Analyze and Identify loophole in legislation and recommend possible rectifications<br><br>• Demonstrate knowledge of limits and exposure indices for common occupational exposures<br><br>• Demonstrate knowledge of international standards such as International Labor Organization (ILO) conversions, Southern African Development Community (SADC) protocols, Occupational Health and Safety Assessment Series (OSHAS),and International Organization for Standardization (ISO) standards, Botswana legislation and standards (BOBS) |
| Apply sound Occupational risk management principles to Anticipate, Identify and Evaluate occupational hazards<br><br>**Related Modules**<br><br>• Safety Principles and Practices I & II<br>• OHS Management Practices<br>• Environmental Health<br>• Occupational hygiene I & II<br>• Occupational toxicology<br>• Chemical Safety Management<br>• Fleet management<br>• Fire safety & Emergency preparedness<br>• Food safety & hygiene<br>• Infection control<br>• Risk Management<br>• Industrial Ergonomics | • Demonstrate knowledge and skills to anticipate, Identify and classify occupational hazards as; ergonomics, physical, biological, chemical and psychosocial in all economic activities<br><br>• Discuss Permissible exposure levels and biological exposure indices of occupational hazards as set by international hygiene agencies<br><br>• Explain surveillance strategies and techniques for quantification and evaluation of occupational exposures<br><br>• Demonstrate knowledge of occupational health risk management principles<br><br>• Discuss common Theories of Risk management and their application in safe work practices<br><br>• Explain the application of occupational health and safety management systems; ISO 9001, ISO 14001 and ISO 45001 to prevent occupational risk |
| Develop, Implement and Monitor Hazard Control Measures as per the international best practice<br><br>**Related Modules**<br><br>• Safety Principles and Practices I<br>• Safety Principles and Practices II<br>• OHS Management Practices | • Demonstrate mastery of the use of the Hierarchy of Control measures as the universal best approach to managing occupational hazards<br>• Discuss appropriate hazard controls for a given occupational hazard<br><br>• Scrutinize existing hazard control measures to identity any gaps and make appropriate recommendations |

| | |
|---|---|
| • Occupational hygiene I & II<br>• Occupational toxicology & Chemical Safety Management<br>• Risk Management<br>• Industrial Ergonomics<br>• Infection control<br>• Occupational diseases<br>• Fire safety & Emergency Preparedness<br>• Safety program auditing & Leadership<br>• Industrial Attachment | • Demonstrate knowledge and competence in developing and enforcing health and safety regulations, correcting unsafe acts and unsafe conditions, ensuring that only authorized, adequately trained workers operate equipment<br>• Demonstrate knowledge on the use of reactive and proactive measures in response to occupational incidents<br>• Identify vulnerable groups within the organization and come up with relevant control measures; eg pregnant women, workers with disability, young workers<br>• Identify and explain factors that could lead to noncompliance with established controls by different groups of workers<br>• Demonstrate skills for safety education, training and induction<br>• Discuss sound techniques for hazard communication<br>• Discuss strategies for making effective recommendations to employers to manage occupational hazards |
| Collect, analyze, and interpret data to identify trends in the causation of accidents, injuries, and diseases by occupational exposures<br>**Related modules**<br>• Biostatistics<br>• Epidemiology<br>• Introduction Research Methods<br>• Research Proposal<br>• Accident Investigation & Prevention<br>• Research Project | • Discuss the root causes of occupational accidents and diseases<br>• Conduct effective accident investigations and demonstrate knowledge of reactive and reactive measures<br>• Critically review literature in the area of public health, environmental health, and Occupational health & Safety to get updated on the current issues in the field for the betterment of workplace safety<br>• Conduct research in the area of occupational health and safety, public health and environmental health to generate information to inform occupational health policies and legislation<br>• Use professional reasoning to analyze, select and employ appropriate safety interventions<br>• Review policies, procedures, plans to identify gaps and ensure effectiveness |

| | |
|---|---|
| Be a professional, compassionate and an effective leader<br><br>Related Modules<br><br>• Communication and study skills<br>• Ethics and Professional behavior<br>• Occupational psychology<br>• Human resource management<br>• Safety supervision and leadership | • Demonstrate knowledge of good communication skills and professional behavior in the workplace<br><br>• Show empathy and compassion to the general workforce including victims of unfortunate incidents<br><br>• Discuss factors that influence human behavior for use to address unsafe acts<br><br>• Compare and contrast between the three types of leaders in health and safety, and explain the best leadership<br><br>• Demonstrate understanding of organizational culture and employee relations<br><br>• Discuss effective ways of improving performance and ensuring accountability<br><br>• Demonstrate competence in working within the managerial structure and resource base defined by the health and social care and emerging areas of practice<br><br>• Create and maintain social and physical environments and practices that promote the wellbeing and safety of workers to prevent work related diseases and incidents<br><br>• identify mental health is a serious occupational hazard and explain measures to prevent psychosocial stress<br><br>• appreciate that workers have non occupational exposures including social issues that can negatively affect their work, and make them more susceptible to injuries, and take such issues into consideration and when addressing their work performance<br><br>• explain the qualities of a visionary leader, who lead by example |

**QUALIFICATION STRUCTURE**

**SECTION C**

| | Title | Level | Credits |
|---|---|---|---|
| **FUNDAMENTAL COMPONENT** Subjects / Units / Modules /Courses | Communication and Study Skills | 5 | 9 |
| | Basic Computer Applications | 5 | 12 |
| | Mathematics | 5 | 10 |
| | Physics | 5 | 12 |
| | Chemistry | 5 | 12 |
| | Anatomy & Physiology | 5 | 14 |
| | Epidemiology | 6 | 12 |
| | Introduction to Biostatistics | 6 | 13 |
| | Research methods I | 7 | 16 |
| **CORE COMPONENT** Subjects / Units / Modules /Courses | Safety Principles and Practices I | 5 | 10 |
| | Occupational Health and Safety Legislation | 6 | 10 |
| | Ethics & Professional behavior | 6 | 12 |
| | Safety Principles and Practices II | 6 | 12 |
| | Accident Prevention & Investigation | 6 | 12 |
| | Occupational Psychology | 6 | 12 |
| | SHEQ Management Systems & Theories | 6 | 10 |
| | Environmental Health | 6 | 10 |
| | Infection Control | 6 | 10 |
| | Occupational hygiene I | 6 | 12 |
| | Occupational toxicology | 6 | 12 |
| | Chemical Safety Management | 6 | 12 |
| | Occupational Risk Management | 6 | 10 |
| | Industrial Ergonomics | 7 | 10 |
| | Industrial hygiene II | 7 | 14 |
| | Occupational Health & Safety Records Management | 7 | 10 |
| | Food Safety & Hygiene | 6 | 10 |
| | Occupational Diseases | 7 | 10 |
| | Research Methods II (Proposal) | 7 | 21 |
| | Equipment & Fleet Management | 7 | 10 |
| | Fire Safety & Emergency Preparedness | 7 | 12 |
| | Human Resource Management | 7 | 10 |
| | Safety Program Auditing & Evaluation | 7 | 10 |
| | Safety Supervision & Leadership | 7 | 10 |

| | | | |
|---|---|---|---|
| | Research Project (DISSERTATION) | 7 | 32 |
| | Industrial Placement III | 7 | 58 |
| **ELECTIVE COMPONENT** Subjects / Units / Modules /Courses | Communicable & Non communicable diseases | 5 | 9 |
| | Sexual & Reproductive Health | 6 | 9 |
| | Nutrition and Health | 6 | 9 |
| | Entrepreneurship | 6 | 9 |
| | | | |
| | **Total credits (including two electives)** | **7** | **489** |
| | **Total credits (including three electives)** | **7** | **498** |

**Rules of combinations, Credit distribution** (where applicable):

Level 5 Credits (excluding electives): 79
Level 6 Credits (excluding electives): 169
Level 7 Credits: 223

**Total credits excluding electives: 471**

Minimum credits for Electives: 18
Maximum credits for electives: 27

**Total minimum credits (with two electives): 489**
**Total Maximum credits (with three electives): 498**

A student must pass all Fundamental and Core components to be eligible to graduate, including a minimum of two (2) electives and a maximum of three (3) electives, with a **Minimum Total credits load** of **489,** and **a total maximum credit of 498.**

**ASSESMENT STRATEGIES, REQUIREMENTS AND WEIGHTINGS**

## MODERATION ARRANGEMENTS

### Documentation

All necessary documents including: qualification document, alignment matrices, assessment instruments and Assessment criteria/rubrics should be available.

### Pre-assessment Moderation

Before administering any assessments that contribute towards the award of credits, moderation must take place. This should entail but not limited to the following:

- Ascertaining that the assessment strategy to be used is appropriate for the learning outcome to be assessed
- Ascertaining that the assessment instrument adequately captures the learning outcomes against which assessment is to be carried out
- Ascertaining whether the assessment tasks or questions can enable the assessor to collect sufficient evidence that is typical of relevant exit level descriptors.
- Checking if the cover page contains all necessary information
- Checking if the assessment instrument layout is appropriate and that wording of assessment tasks or questions is appropriate.
- Checking if the assessment criteria or rubrics is consistent with the learning outcomes against which assessment is to be done.

### Post-assessment Moderation

Moderators must verify that the assessment has been done in compliance with assessment principles. This should include the following:

- Checking if all scripts have been assessed using the same criteria.
- Verifying if assessment judgments and decisions have been done consistently
- Checking if calculation of marks has been done correctly
- Checking if necessary records and reports have been completed.

### Sampling Procedure for Moderation

The total number of scripts to be sampled depends on the total number of candidates. If the number of candidates is 20 or less, the moderator should go through all the papers. For more than 20 candidates, the sample shall be 20 candidates plus 10% of the remaining total number of Scripts. The sample should be representative of the population of candidates in relation to performance, gender, etc.

### Moderation reports

A moderation report shall capture, but not limited to the following:

- Sample size and sampling procedures
- Observations about the performance of candidates
- Consistency of assessment judgements and decisions
- Assessment instruments and alignment to learning outcomes
- Recommendations for improvement

### Qualification(s) required for Moderators

Assessors and moderators must have relevant qualifications higher than the level of qualification for which they are engaged.

Professional work experience required
Assessors and moderators for this qualification should have a minimum of two years assessment experience at a tertiary level.

Professional registration and accreditation
All assessors and moderators must be registered and accredited with relevant accreditation bodies.

**RECOGNITION OF PRIOR LEARNING (if applicable)**

**Recognition of Prior Learning**

- Exemptions may be granted to Occupational health & safety diploma holders from recognized institutions who subsequently progress to degree. Once such exemption has been granted, the programme for which the student is currently registered will be credited with the original marks obtained for the credit course(s) and the corresponding grade points. Diploma holders once exempted will automatically start in third year semester one.

- Candidates who do not meet the above requirement but have BGSCE with at least 3 years of relevant work experience and a letter of support from their current employer may be considered.

- Mature entry requirements: Candidates should be 26 years or above and with 3 years relevant work experience

**PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)**

**Horizontal Articulation** (related qualifications of similar level that graduates may consider)
graduates of this qualification may consider pursuing related qualifications (at this level) such as;

- BSc design Ergonomics
- BSc Safety Management
- BSc Environmental Health and safety
- BSc in Environmental health
- BSc Occupational Hygiene

**Vertical Articulation** (qualifications to which the holder may progress to)

Graduates may progress to higher level qualifications such as:

- Post graduate diploma in Occupational Health and safety
- Ms in Industrial Hygiene
- MS IN occupational Health and safety
- MSc Ergonomics
- MSc Environmental Health
- MSc in Safety Management

**Employment**

Graduates will have requisite competencies and attributes to work as:

- Occupational Health and Safety Practitioners
- Educators
- Risk Specialists
- Loss control officers
- Safety Manager
- Safety Health consultant and coordinators
- Safety Quality Assurance officers
- SHE officers
- Safety auditors
- Safety inspectors
- Safety lecturers

**QUALIFICATION AWARD AND CERTIFICATION**

For a student to qualify for the award of BSc degree in Occupational Health & Safety, he / she must have completed all the program requirements; course work for all courses in the four-year program, dissertation and industrial attachment I, II and III, and a minimum of 480 credits.

**REGIONAL AND INTERNATIONAL COMPARABILITY**

This qualification compares with the following:

1. **University of Ryerson (Canada); offers Bachelor of Applied Science (BSc) Occupational Health and Safety**

**Total 120 Credits**
**NCQF: Level 7**

Competencies

- Epidemiology and disease processes
- Safety systems and accident theory
- Management and law
- Health research methods
- Occupational hygiene and toxicology

- Risk assessment and communication
- Health education, promotion and planning

**2. Grand Valley State University (USA) offer Bachelor of Science in Occupational Safety and Health**
**Total credits**; 120 credits
**NCQF Level 7**

Competencies in:

- Developing safety programs
- Inspecting commercial, government and industrial work sites
- Examining plans for new buildings and machines
- Developing safety programs
- Inspecting commercial, government, and industrial work sites
- Conducting safety and health audits
- Preparing reports
- Investigating accidents
- Communication skills key component of job
- Monitoring (air/noise/heat)

**3 Illinois State University (USA); Bachelor Degree in Safety**

The mission of the safety program at Illinois State University is to prepare graduates who will serve society as competent and ethical safety and health professionals. The undergraduate program is designed to develop the broad skill set and intellectual confidence that is required by individuals who seek to manage loss in an increasingly diverse global economy. Resources and energy are devoted to creating student-centered learning opportunities that are based upon a foundation of mathematics and science, emphasizing the technological, management, and ethical aspects of a career in safety and health, and preparing graduates to function as effective collaborators and leaders.

**Credits load: 120**
**NCQF level: 7**

Program Educational Objectives

The professional objectives of the safety program at Illinois State University are to prepare graduates who, within five years, will have independently demonstrated:

- Efficient risk management within their organization – Illinois State University safety graduates critically identify and assess recognized hazards and conditions as new technologies, processes, and industries emerge.

- Effective communication of safety and health issues within their organization or local/regional/global industry sector - Illinois State University safety graduates can advocate the development of new loss prevention and control programs to multiple stakeholders. They are recognized for the quality of their written reports, presentations, and training programs.
- Characteristics of effective leadership within their organization or local/regional/global industry sector - Illinois State University safety graduates adhere to ethical safety and health practices. They supervise entry-level safety and health professionals, manage committees, conduct investigations, and serve as a professional resource for their peers.
- Continued professional growth and pursuit of life-long learning in an ever-changing global economy - Illinois State University safety graduates attain professional certification, are active members within their professional societies, and continuously seek to integrate new knowledge into the practice of safety and health.

**4** University **of Mauritius: BSc (Hons) Occupational Health and Safety - LMSC438**

- Qualification code:
- NQF level: 7
- BSc (Hons) Degree (105 credits)

**Programme Duration**

**Normal (Years) Maximum (Years)**

BSc (Part-Time): 4 Years (8 Semesters) 6 Years (12 Semesters)
BSc (Part-Time – Upgrading) : 2 Years (4 Semesters) 4 Years (8 Semesters)

University of Mauritius offers a modular programme in Occupational Health and Safety, which is a collaborative endeavor with the Faculty of Science offers a progression through Diploma (60 credits) to a BSc (Hons) Degree (105 credits). The programme is designed to benefit both Occupational and Health Officers who wish to develop and update their skills and those with a general interest in understanding the technical and managerial skills to address the occupational health and safety issues of modern society.

**Program exit competencies**

The primary objective of the programme is to prepare and provide professional training to practicing and potential health and safety officers, so that they can be competent in:

- Identifying, understanding and appreciating occupational hazards (actual and potential) and the taking of appropriate measures for their prevention and control
- Analyzing, investigating, reporting and prevention of accidents and associated problems in the workplace;
- Advising about the requirements in promoting a safe and healthy working environment; and
- Applying the provisions of the occupational safety, health and welfare legislation to ensure their compliance

A lot of benchmarking has been done including stakeholder consultations and this programme is very similar to other Bachelor of Science in Occupational health & safety programs offered by regional and international institutions in terms of delivery and exit outcomes. There have been differences identified in the program structure, duration and some modules, but in overall there is a lot of similarities. This BSc in Occupational Health & Safety requires trainees upon completion of studies, to be able to; Interpret and apply Occupational health and safety legislative requirements, industry standards, and best practices in a variety of workplaces, apply risk management principles to anticipate, identify, evaluate and control different types of occupational hazards, Collect, manage, and interpret information and data to identify trends and issues in the workplace, Design, support, and evaluate health and safety programs and implement procedures using project management principles and processes appropriate to the task, investigate and prevent occupational accidents, as well as developing and managing safety management systems.

These exit outcomes compare well to the degree programs offered by University of Mauritius, Ryesorn University in Canada, Grandvalley State University USA and Wildorf University in USA. All programs offer in their first year all pure science modules; Physics, Chemistry and Biology and mathematics.

Unlike Ryesorn, Grandvalley and Wildorf occupational health and safety programs, this BSc program has a strong component of industrial hygiene, toxicology and practicum. This makes it similar to Illinois State University Safety program, which involves a lot of instrumentation and sampling. The Occupational Hygiene Module in the BC program has a semester long of practicals; where students acquire hands on experience in sampling with various occupational hygiene equipment; sound, light, vibration, gases, Airborne contaminants, dissolved solids, personal and environmental heat stress, humidity among others. This equips our learners with knowledge and skills to sample and evaluate a number of exposures in the world of work.

Compared to the University of Mauritius program, the BC Bachelor of Science in Occupational health & safety program is a full time, eight (8) semester program which has a strong practical and experiential learning components. The University of Mauritius safety program though it offers industry relevant modules like; The court process and Health economics, it offers limited work integrated learning. During practicum of this proposed program, trainees will rotate in industries such as construction, mining, agriculture, healthcare and manufacturing in Botswana, Lesotho and Swaziland. This prepares graduates to conduct risk assessments and control hazards in any given work place, to safe lives and preserve the health of workforce

**REVIEW PERIOD**

To be reviewed once every three (03) years.

**Other information –** please add any supplementary information to help the application for this qualification for NCQF Registration.

**For Official Use Only:**

| CODE (ID) | | | |
|---|---|---|---|
| **REGISTRATION STATUS** | **BQA DECISION NO.** | **REGISTRATION START DATE** | **REGISTRATION END DATE** |
| | | | |
| **LAST DATE FOR ENROLMENT** | | **LAST DATE FOR ACHIEVEMENT** | |
| | | | |

## Response to recommendations

| Criterion | Comments | Corrections by Developer |
|---|---|---|
| | | |
| 10 | The credit value has been provided (509 credits) but the reviewers question the practicability of three industrial attachments. The reviewers are of the view that these industrial attachments were not removed when the developer removed other exit levels i.e. Certificate and Diploma. | • Addressed<br>• Industrial placement I removed, II to be optional at institution level, at the end of second year (this refers to industrial placement I and II in the previous submission)<br>• Industrial placement III credits recalculated to 58 using notional hours<br><br>**Total credit value**<br><br>Level 5 Credits (excluding electives): 79<br>Level 6 Credits (excluding electives): 169<br>Level 7 Credits: 223<br><br>**Total credits excluding electives: 471**<br><br>Minimum credits for Electives: 18<br>Maximum credits for electives: 30<br><br>**Total minimum credits (including two electives): 489**<br>**Total Maximum credits (including three electives): 473**<br><br>A student must pass all Fundamental and Core components to be eligible to graduate, including a minimum of two (2) electives and a maximum of three (3) electives, with a **Minimum Total credits load** of **489,** and a total maximum credit of **501** |

| | | |
|---|---|---|
| 15 | Minimum and maximum number of credits for electives have been provided but reviewers are of the view that courses such as Job Hazard Analysis and Management, Fire Safety and Emergency Action Plans, Equipment and fleet Management, Construction and Excavation Safety can be subsumed under Safety Principles and Practices as topics not courses.<br>- Occupational Toxicology and Chemical Safety Management can be separated into two (2) courses.<br>- Occupational Health and Safety Records Management and Occupational Records Management appear to be the same course and they are both offered at Level 7.<br>- Suggest that Occupational Diseases be changed to Occupational Health so that its scope is broadened | Addressed<br>• Job Hazard Analysis & Management, and Construction & Excavation Safety changed from modules to topics under Safety Principles and Practices II<br>• Fire Safety & Emergency Action Plans remains a module; now called "Fire Safety & Emergency Preparedness"<br>• Equipment & Fleet Management remains a module<br>• Occupational health and safety records management was written x2, one has been removed<br>• "Occupational diseases" remains a Module name, since the suggested module name "Occupational health" by WHO definition covers not just diseases but all aspects of health and safety including hazards. |
| 20 | Noted that three new courses have been added but despite this, the duration of the qualification has remained the same. The program structure does not show that these courses replaced any courses. It will be good to see how courses | Addressed<br>• The three modules; Chemistry, Physics and Mathematics were added. The total credit value falls within the BQA requirements for a degree program therefore the duration of the program remains four years.<br>• The two industrial placements modules which have been removed provided space for additional modules without going outside credits limits. |

| | | |
|---|---|---|
| | will be spread over the four years. | |
| 21 | The proposal does not meet all requirements as noted above | • All issues raised have been addressed |
| | | |
| | | |