

BQA NCQF QUALIFICATION TEMPLATE

SECTION A: QUALIFICATION DETAILS																			
QUALIFICATION DEVELOPER (S)			Botswana School of Business Sciences																
TITLE		Certificate V in Mobile and Web Technologies							NCQF LEVEL			5							
STRANDS (where applicable)		N/A																	
FIELD		Information and Communication Technology							CREDIT VALUE			120							
SUB FIELD		Information Technology																	
New Qualification		✓		Legacy Qualification						Renewal Qualification									
										Registration Code									
SUB-FRAMEWORK		General Education						TVET			✓		Higher Education						
QUALIFICATION TYPE		Certificate		I		II		II I		I V		V		✓		Diploma		Bachelor	
		Bachelor Honours						Post Graduate Certificate					Post Graduate Diploma						
		Masters										Doctorate/ PhD							
RATIONALE AND PURPOSE OF THE QUALIFICATION																			
RATIONALE: The rationale for obtaining a certificate qualification in mobile and web development aligns closely with the HRDC Priority Skills for 2025. In today's digital age, mobile and web technologies are at the forefront of innovation and communication. Businesses across industries are increasingly reliant on mobile and web platforms to reach customers, deliver services, and manage operations. Therefore, individuals skilled in mobile and web development are in high demand to create, maintain, and enhance these critical digital assets.																			

By pursuing a certificate qualification in mobile and web development, individuals can acquire the essential skills and knowledge needed to meet industry demands and contribute effectively to modern businesses. These skills include proficiency in programming languages such as HTML, CSS, and JavaScript, and in frameworks such as React for web development, as well as in Java for mobile app development. Additionally, understanding concepts such as responsive design, user experience (UX) principles, and backend development further enhances one's ability to create robust and user-friendly digital solutions.

The HRDC Priority Skills for 2025 emphasise the importance of fostering a workforce equipped with digital skills to drive economic growth and innovation [4]. A certificate qualification in mobile and web development not only empowers individuals with technical expertise but also enhances their employability and career prospects in a competitive job market. Furthermore, as businesses continue to invest in digital transformation, professionals with mobile and web development skills play a pivotal role in driving organisational success and staying ahead of technological advancements.

In conclusion, the rationale for pursuing a certificate qualification in mobile and web development is rooted in the growing significance of digital technologies across industries, as highlighted by the HRDC Priority Skills. This qualification equips individuals with the necessary tools and competencies to thrive in the digital economy, contribute meaningfully to businesses, and seize opportunities in a rapidly evolving technological landscape.

PURPOSE: (itemise exit level outcomes)

The purpose of this qualification is to produce graduates with broad technical knowledge, skills and competence to:

1. Analyse and compare different mobile and web frameworks and platforms to determine their suitability for specific development scenarios
2. Apply system development life cycle (SDLC) steps and procedures in the design and implementation of mobile and web applications
3. Evaluate the roles of software and hardware components in enabling cross-platform mobile and web application development

4. Differentiate and evaluate various testing strategies used for quality assurance throughout the system development lifecycle.
5. Demonstrate and apply strategies for continuous professional development by exploring and adopting emerging tools, technologies, and industry trends in mobile and web development

MINIMUM ENTRY REQUIREMENTS (including access and inclusion)

- (a) Minimum entry level is NCQF Level 4
- (b) There will be provision for RPL and CAT for entry according to the national RPL and CAT policies.

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SECTION B QUALIFICATION SPECIFICATION	
GRADUATE PROFILE (LEARNING OUTCOMES)	ASSESSMENT CRITERIA
1. Design, build, and maintain responsive web and multimedia applications using appropriate tools and technologies	1.1: Analyse an existing business and be able to design and develop a computerised solution that can meet the business needs 1.2: Create websites following web standards and multimedia tools. 1.3: Integrate graphics, audio, and video for enhanced interaction. 1.4: Test and deploy functional web solutions
2. Communicate effectively and apply study skills in a professional context	2.1: Write clear technical and academic reports. 2.2: Present ideas effectively in oral and written form. 2.3: Apply research and study skills to support learning
3. Design, implement, and evaluate software applications using programming principles to meet specified requirements.	3.1: Write programs using basic Java syntax and structures. 3.2: Implement object-oriented programming principles. 3.3: Test and debug simple applications
4. Design user-centred and visually appealing interfaces for functional mobile and web applications.	4.1: Apply principles of user experience (UX) design in developing mobile applications 4.2: Create wireframes and prototypes from requirements for a web and mobile application

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	4.3: Conduct usability tests and refine designs based on feedback for mobile applications
5: Use mobile web frameworks to build responsive and interactive applications.	5.1: Apply frameworks to develop mobile-friendly apps. 5.2: Ensure applications adapt across devices and platforms. 5.3: integrate multimedia and interactive features
6. Apply basic mathematical concepts to solve problems encountered in mobile and web programming	6.1: Use algebra, logic, and functions to support programming. 6.2: Apply mathematical reasoning in algorithms and problem-solving. 6.3: Demonstrate use of data representation in computing
7: Apply system design principles to create technical solutions	7.1: Analyse user requirements to design system models. 7.2: Produce diagrams (ERD, DFD, UML) to describe solutions. 7.3: Apply design methodologies in computing projects

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SECTION C		QUALIFICATION STRUCTURE			
COMPONENT	TITLE	Credits Per Relevant NCQF Level			Total Credits
		Level [5]	Level [6]	Level []	
FUNDAMENTAL COMPONENT Subjects/ Courses/ Modules/Units	Web and Multimedia Development	5			15
	Communications and Study skills	5			15
CORE COMPONENT Subjects/Courses/ Modules/Units	Introduction to Java Programming	5			15
	User Experience Designs	5			15
	Mobile Web Frameworks	5			15
	Mathematics for Computing	5			15
	Cross Platform Development for Mobile Application	5			15
	System Design	5			15
STRANDS/ SPECIALIZATION	Subjects/ Courses/ Modules/Units	Credits Per Relevant NCQF Level			Total Credits
		Level []	Level []	Level []	

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1.					
Electives					



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SUMMARY OF CREDIT DISTRIBUTION FOR EACH COMPONENT PER NCQF LEVEL

TOTAL CREDITS PER NCQF LEVEL

NCQF Level	Credit Value
Level 5	120
TOTAL CREDITS	120

Rules of Combination:

(Please Indicate combinations for the different constituent components of the qualification)

For this qualification, students will do all the modules. There are no electives.

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ASSESSMENT ARRANGEMENTS

Assessments are formative (40%) and summative (60%)

MODERATION ARRANGEMENTS

Moderation shall be done by fully Botswana Qualification Authority (BQA) accredited moderators. Both internal and external moderation shall be done in accordance with applicable policies and regulations. Assessors and Moderators will be selected from the pool of qualified and experienced lecturers who hold teaching and training certification and will be selected according to established ETP's recruitment procedures.

Assessors and moderators must have valid registration and accreditation with all relevant bodies, such as the Botswana Qualification Authority (BQA) or any other relevant and recognised body

RECOGNITION OF PRIOR LEARNING

There shall be a provision for awarding this qualification through RPL means according to the ETP's RPL policy, which is aligned to BQA regulations

CREDIT ACCUMULATION AND TRANSFER

Candidates may submit evidence of credits accumulated in related qualifications in order to be credited for the qualification they are applying for.

PROGRESSION PATHWAYS (LEARNING AND EMPLOYMENT)

LEARNING

Vertical pathways

Upon completion of the qualification, graduates can progress into the Diploma in Mobile and Web Technologies.

Horizontal

- Certificate in Applied Business Computing,
- Certificate in Information Communication Technologies

- Certificate in Mobile and Web Technologies

Employment pathways

Upon completion, graduates can secure employment in various computing disciplines beginning at entry level point for the positions. They could venture into industries such as

- Mobile App Developer,
- Web Developer,
- Technical Support Specialist,
- UI/UX Designer,
- Digital Consultant.

QUALIFICATION AWARD AND CERTIFICATION

To be awarded a **Certificate in Mobile and Web Technologies**, the candidate must have attained a minimum of 120 credits. A Certificate in Mobile and Web Technologies will be awarded when all requirements are met. Graduates will be issued a certificate in Mobile and Web Technologies.

SUMMARY OF REGIONAL AND INTERNATIONAL COMPARABILITY

Similarities

All three qualifications—Damelin College's FET Certificate in IT: Systems Development, the Indian Institute of Skill Development Training's Certificate in Web Technology, and Rosebank College's Higher Certificate in Mobile Application and Web Development—share a common focus on preparing learners for careers in software and web development.

Duration

Each is structured as a one-year programme and equips students with entry-level skills suitable for junior developer roles. The main outcomes of these programmes include the ability to design, build, and maintain applications, whether as websites, mobile apps, or broader IT systems. Assessments

across all three institutions emphasise practical learning through assignments, real-world projects, and portfolios, ensuring graduates can demonstrate hands-on competence, which aligns well with this qualification.

Progression Pathways

Furthermore, all qualifications create clear educational progression pathways into higher-level diplomas, degrees, or specialised certifications, while also opening employment opportunities in junior web, mobile, or full-stack development positions. All these have been well factored into the Certificate in Mobile and Web Technologies qualification, which also follows the same trends and standards. It means that graduates of this qualification will be well-suited to compete in any industry across the world. The assessment strategies for the developed Certificate qualification also include practical activities to ensure that applicants are well-grounded and have exposure to a real-world environment and business challenges similar to those in the assessment strategies for this proposed qualification.

Differences

NQF Levels and Credits

Despite these similarities, there are distinct differences in focus, structure, and recognition. Damelin College's qualification is at NQF Level 4 with 165 credits, making it a foundational IT qualification that covers programming languages (Java, C#, Visual Basic .Net), databases, e-commerce, and project management, alongside fundamental modules in Communication Skills and Mathematical Literacy. In contrast, the Indian Institute of Skill Development Training offers a Certificate in Web Technology that focuses strongly on industry-relevant web technologies such as HTML, CSS, JavaScript, JQuery, PHP, MySQL, AJAX, and XML. Its content is entirely technical, with no non-technical fundamentals.

Rosebank College, on the other hand, offers a Higher Certificate at NQF Level 5 worth 120 credits, emphasising mobile application development and user experience (UI/UX) design. Unlike Damelin, it does not include electives, and unlike the Indian Institute, it integrates modules such as Digital Literacies and Quantitative Thinking to build broader academic skills. These differences are primarily due to the high demands from these different industries for which the qualifications are built. This qualification however has been built to extract the best from these different industries, to ensure that

the graduates can compete in any of these industries. The developed qualification has adopted web standards and frameworks that are very much popular in the local market.

Assessment Strategies

Assessment strategies also differ. Damelin clearly distinguishes between formative (40%) and summative (60%) assessments, including a Portfolio of Evidence (PoE), while the Indian Institute and Rosebank College both rely on integrated assignments, real-world briefs, tests, and portfolios without fixed weighting percentages. This blended approach has also been adopted in the BAC qualification for better understanding and assimilation of content taught to students. This is, however, very common to qualifications of this nature. In terms of recognition, Damelin's qualification is accredited through MICT SETA and SAQA, and Rosebank's through the Independent Institute of Education (IIE) and SAQA, ensuring national recognition in South Africa.

Progression Pathways

The Indian Institute's certification is institution-specific but links learners to international certifications such as AWS and Adobe. Finally, employment pathways vary slightly: Damelin graduates may access broader IT support and programming roles, Rosebank's graduates are directed toward mobile and web-specific roles, while the Indian Institute prepares learners for a wide range of web and full-stack developer positions in international contexts. This slight difference is due to the different industries for which both qualifications are built for.

Damelin College focuses on preparing students to develop and maintain software applications as junior programmers while also developing their interpersonal and workplace skills. The Indian Institute emphasises the ability to develop responsive front-end websites, implement back-end functionality, and deploy full-stack projects with modern tools. Rosebank College, in contrast, highlights problem-solving in mobile and web contexts, with outcomes that include conceptualising, designing, and maintaining mobile and web applications, applying UX/UI principles, and working professionally in a team. This is the same approach adopted in the BAC qualification to ensure that students remain relevant to local and international markets.

For Damelin graduates, education progression is into Higher Certificates and Diplomas in IT at NQF Levels 5 and 6. The Indian Institute offers international progression opportunities into Advanced

Diplomas, bachelor's Degrees, and specialised certifications such as AWS or Adobe. Rosebank College provides structured local progression through the IIE, offering articulation into other Higher Certificates, Diplomas, and eventually degrees in IT and related fields.

Damelin's qualification opens opportunities for roles such as junior programmer, systems developer, database assistant, web developer, and IT support technician. The Indian Institute has a strong web-technology focus, preparing learners for positions like web designer, mobile app developer, UI developer (trainee), junior full-stack developer, and web maintenance executive. Rosebank College directs its graduates towards more specialised mobile and web roles, such as junior web developer, junior content developer, and junior mobile app developer, with a strong focus on user experience and design.

The developed qualification enables students to be employed as fully qualified mobile developers and in many other roles. The developed qualification employment pathways have been extracted from the above qualifications, as can be seen from the modules offered. The cognitive skills in the qualifications enable students to be employed across many more industries. The modules have a similar context of application, which will foster a level of independence when working in the workplace.

Conclusion

In conclusion, the comparative analysis demonstrates that while Damelin College, the Indian Institute of Skill Development Training, and Rosebank College differ in academic level, technical emphasis, assessment structures, and recognition frameworks, all three qualifications align strongly in their core objective of producing work-ready graduates for the software, web, and mobile development industries.

The Certificate in Mobile and Web Technologies effectively synthesises the strengths of these qualifications by combining technical depth, practical and blended assessment approaches, industry-aligned standards, and clearly articulated progression and employment pathways. By integrating relevant web and mobile technologies, fostering applied problem-solving skills, and aligning with both local and international market demands, this qualification ensures that graduates are not only comparable to those from established institutions but also competitively positioned for diverse employment opportunities and further academic progression globally.

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REVIEW PERIOD

The review period is 5 years.

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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	

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Qualifications Authority