

Employer Guidelines for using OFO codes in the MICT SETA Sector

Prepared by JCSE/IITPSA on behalf of the MICT SETA Sector Skills Planning department

December 2016/January 2017

Contents

1.	Intr	oduction to the Guide	2
2.	The	e OFO explained	2
2	2.1 0	rigin of the OFO	2
2	2.2 Te	erminology used by the OFO	2
	>	Job	2
	>	Occupation	3
	>	Skill level and Skill Specialisation	3
	>	Occupational Divisions	3
2	2.3	Descriptors in the OFO	5
3.	Wh	y use the OFO?	8
4.	Ма	pping Job Titles to Occupations	9
2	↓.1 Ta	asks and Knowledge	9
4	1.2 Ta	asks and Descriptors	9
4	1.3 Ti	tles and Descriptors	9
4	1.4 Jc	bs and Occupations	9
4	1.5 N	o occupation found	. 10
5.	Cor	mmon OFO codes for the MICT SETA sub-sectors	. 11
6.	Am	ending the OFO	. 20
7.	Cor	nparative exploration of the 2015 and 2017 OFO Codes	. 28
8.	Cor	nclusion	. 29

TABLE OF TABLES:

Table 1: Duplication of specialisations	6
Table 2: Occupations applicable across all sectors	. 11
Table 3: Advertising	. 12
Table 4: MEDIA	. 13
Table 5: FILM and tv	. 13
Table 6: BROADCASTING	. 14
Table 7: JOURNALISM	. 15
Table 8: Information & Communications Technology and Electronics	. 16
Table 9 : OFO Codes per sub-sector	. 21
Table 10: 0F0 2015 amendments	. 28
Table of Figures:	
Figure 1: Structure of the OFO	4

Acronyms

Abbreviation	Terminology	
DHET	Department of Higher Education and Training	
МІСТ	Media, Information and Communications Technologies	
NQF	National Qualifications Framework	
OFO	Organising Framework for Occupations	
SAQA	South African Qualifications Authority	
SETA	Sector Education and Training Authority	
SSP	Sector Skills Plan(ning)	

1. Introduction to the Guide

Progress in the field of skills development continues to unfold in the most unpredictable way. There are challenges in implementation; equally, there are also positive outcomes that have been documented by practitioners. SETAs continue to perform their duties as agencies of skills development, with the sole mandate to address skills shortages in their respective sectors. The Media, Information and Communication Technologies Sector Education and Training Authority (MICT SETA) is also guided by this mandate, and therefore it aims to generate, facilitate and accelerate the processes of quality skills development in the MICT sector. This can only be possible if it is able to identify where skills interventions are required. It must be able to provide data into the national skills reporting structures in forms that are compatible across sectors at standard levels of competence.

As means to try regulate language and levels relevant to occupations in South Africa, the Department of Higher Education and Training (DHET) has implemented and updated the Organising Framework for Occupations (OFO). This is a coded occupational system that DHET uses to identify, report, monitor skills demand and Supply in the South African labour market. The OFO adds value to skills development planning and implementation purposes, such that it provides a common language on occupations.

2. The OFO explained

2.1 Origin of the OFO

In efforts to improve planning for skills development, the South African Government through DHET (previously through the Department of Labour) has been engaged in a number of iterations of classifying jobs into occupations. The process started in 2004, using international frameworks for comparison and inspiration. The number of occupations /specialisations classified in the OFO had risen to over 5 000 in the 2015 version of the framework.

The OFO is built from in-depth details of analysing tasks and skills required to perform a job, thus, grouping similar occupations. In such analysis there is a common language on occupations. These occupations are described within originalities and groupings of task, skills and knowledge, also categorized in hierarchical levels.

2.2 Terminology used by the OFO

Explained below are the relevant terminologies used in this document:

> Job

A job is a set of tasks and duties carried out by one person for a particular employer. This includes self-employment. A job has a title, such as driver, secretary, programmer, systems analyst, sales manager, managing director or sole proprietor. A job has a description that sets out the details of tasks, duties and standards of performance to be achieved by the person.

Occupation

An occupation is a set of jobs, tasks and duties are characterised by a high degree of similarity. Within occupations, specialisations identify variances. For example an occupation of a programmer may cover the specialisations of systems programmer, applications programmer, and analyst programmer. A programmer can specialise in one or more programming languages, such as C#, JAVA and .NET.

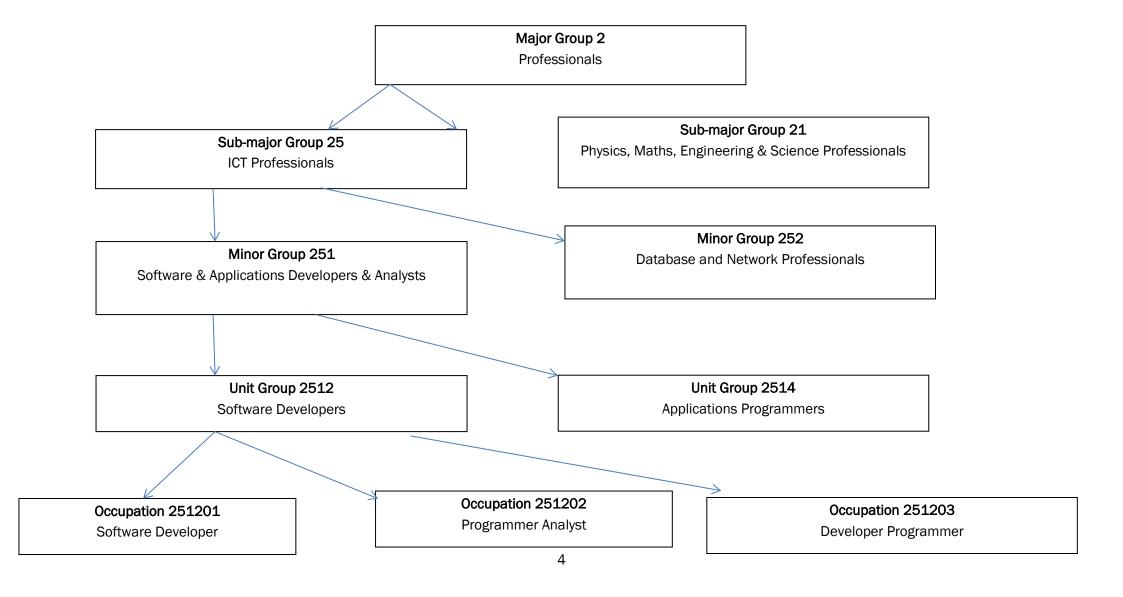
> Skill level and Skill Specialisation

- Skill is the ability to carry out the tasks and duties of a given job to the standards of performance required. Skill level and skill specialisation are dimensions of skill used in arranging occupations into groups.
- Skill level is defined as a function of the complexity and range of tasks and duties to be performed and is measured by considering the nature of the work, the level of formal education and other training/experience required for competent performance.
- Skill specialisation includes the field of knowledge required, the tools/machinery used, the materials involved and the kinds of goods/services produced.

Occupational Divisions

Skill level and skill specialisation are used to divide occupations into groupings, from Major (1 digit), through Sub-major (2 digits), Minor (3 digits) to Unit (4 digits). An Occupation is 6 digits, incorporating specialisations and alternative occupation titles. Examples of these divisions appear in figure 1 below:

FIGURE 1: STRUCTURE OF THE OFO



Specialisation/Job

- Software Designer
- Software Engineer
- Software Architect
- ICT Risk Specialist

Specialisation/Job

- Designer
- Engineer
- Architect
- Integrator

Specialisation/Job

- ICT Developer
- ICT Programmer
- Application Developer

It is evident from this diagram that the user of the OFO can become confused by the visible overlap between what should be discrete occupations. Examining the definitions of "software", "computer programs" and "applications" can reveal that all of these groupings of a computer program or suite of programs are designed to accomplish the same purpose.

This guide attempts to assist users of the OFO by recommending the use of the common occupation codes within the appropriate unit groups and the avoidance of superfluous codes. Below explained are the 'Descriptors' in the OFO.

2.3 Descriptors in the OFO

A description of what an occupation entails is developed for every Occupational Grouping in the OFO; this is to match 'Job Titles' to 'Occupations'. These descriptors, associated tasks, together with specialisations and alternative are used to match Job Titles to Occupations. A Job Title will often correspond to an 'Occupation Title' in the OFO. If that is not the case the user will be required to consider Specialisations for a closer "fit", although there still can be some confusion due to duplication of Specialisations, as shown below in table 1:

TABLE 1: DUPLICATION OF SPECIALISATIONS

CODES	Specialisations
2015-251201	Software Designers
2015-251201	ICT Risk Specialist*
2015-251201	Information Architect Software
2015-251201	Software Engineer
2015-251201	Software Architect
2015-251202	Education Systems Coordinator*
2015-251202	Designer (Hardware* - Digital / Software)
2015-251202	Engineer (Applications / Content / IT / Software / Systems / WAN)
2015-251202	Cross Enterprise Integrator
2015-251202	Computing (Development / Field) Engineers
2015-251202	Architects (Enterprise / Internet / IT / Network / Software / UNIX / Web)
2015-251202	Software Configuration / Licensing Specialist
2015-251202	Database Designer

It is important to note that these jobs are likely not supposed to be grouped or to share the same 2512 – software developers code. A recommendation is that the ICT Risk Specialist must be allocated to 2015-252901 ICT - Security Specialist. The Education Systems Coordinator must be allocated to the 2015-1345 Unit. Of course there has to be a consideration depending on the detail of the tasks; Designer Hardware allocated to 2015-215201 Electronics Designer. Further clarification can be sought from the Descriptors for each Occupation Code. Please see below:

2015-2512 - Software developers research, analyse and evaluate requirements for existing or new software applications and operating systems, and design, develop, test and maintain software solutions to meet these requirements.

2015-251201 - Researches, analyses and evaluates the requirements for existing or new software applications and designs, develops, tests and maintains software solutions. Moreover, the challenge is the inclusion of "develop, test and maintain" in the tasks. These are programming functions and more correctly fall into 251203 (below).

2015-251202 - Designs, develops, modifies documents and tests, implements, installs and supports software applications and systems. Please note that this occupation does not include computer programming.

2015-251203 - Interprets specifications, technical designs and flow charts, builds, maintains and modifies the code for software applications, constructs technical specifications from a business functional model, and tests and writes technical documentation. This occupation covers the computer programming job roles.

3. Why use the OFO?

The OFO as a coded system, it is intended to enable the SETAs and DHET to achieve consistency in reporting, monitoring the supply and demand of skills and the impact of skills development interventions. In the case of the MICT SETA, where the skills employed are transversal, i.e. the same or similar jobs exist within nearly every other sector; this consistency will enable more effective planning of skills interventions. This is relevant when considering the importance of technology as a socio-economic enabler. Using the OFO as recommended by DHET, below are the benefits:

- Job titles are more consistent and specific to the output of a post. The profiles developed for occupations could be used to inform post profiles and job descriptions.
- The curricula and assessment specifications developed for occupations could inform performance assessment processes as a benchmark.
- Labour market consistency in naming convention when advertising vacancies.
- Ease of generating legislated reports.
- Link to Occupational Qualifications.
- Occupational tasks form the starting point for occupational qualification development and assessment.
- Competence or workplace output is linked to specific tasks, for which curriculum components and standards are being developed.
- Occupational pathways, developed by the QCTO could be used to inform career management of occupational groupings in the workplace.

For the OFO system to work, it is important that practitioners understand the application and follow the "rules" of grouping jobs correctly into occupations. Since the working environment is always in constant state of flux, particularly where there is use of technology, it is important to note that innovation brings new tasks and modifications to job descriptions. Therefore, Practitioners should look beneath these changes to understand whether there are any changes to fundamental occupations.

4. Mapping Job Titles to Occupations

Employers seeking to match their internal job titles to Occupations in the OFO should first understand that an Occupation is a group of Jobs, i.e. it is a one-to-many relationship. Thus, similar Jobs will exist within one Occupation. Failing to recognise similarity by looking for exact matches will lead to a proliferation of Occupations being listed unnecessarily in the OFO.

The following guidelines will assist in accurately mapping 'Job Titles' to Occupations in the OFO.

4.1 Tasks and Knowledge

It is important to first look at the tasks carried out and the knowledge required for a particular job (as found in the job description) and then to seek similar sets within the Occupation descriptors. A person who writes computer code is a Software Programmer (alternative titles include Software Developer, Computer Programmer, ICT Programmer, Application Programmer). It is important to note that writing code in Java, C# or COBOL (languages) or for Windows, MAC OS or Android (platform) is a specialisation.

A person who examines processes and creates requirements or specifications for programs is an Analyst. Their specific knowledge set will identify whether they are a Systems Analyst or a Business Analyst. Moreover, an Analyst who also writes the program code is an Analyst Programmer. This combination of two different jobs into one creates a new Occupation.

4.2 Tasks and Descriptors

The tasks included in 'Occupation Descriptors' are based on the answers to the following questions:

- What is the expected output from the tasks performed?
- What activities are critical to the creation of the expected output?
- What is the value that the performance of those activities adds?

These answers enable comparison with existing 'Occupation Descriptors' and tasks in the OFO.

4.3 Titles and Descriptors

When selecting an occupation, it is important to read the 'Occupation Descriptor' to establish its suitability for the job description that underlies the Job Title, as the title alone rarely provides sufficient detail for this comparison.

4.4 Jobs and Occupations

Job Titles used by employers are less important than the tasks included in the Descriptors. For example, there is a high degree of similarity between the tasks performed by managers with the following Job Titles: Regional Manager, Divisional Manager, Department Manager, Branch Manager, Line Manager and Product Manager. It should also be noted that seniority is irrelevant to Occupation unless it indicates a shift into the Management Major Group from another group, or vice versa.

4.5 No occupation found

With almost 1 500 occupations and over 5 600 specialisations / jobs listed in the 2015 edition of the OFO (from Legislator to ticket collector), it should be possible to match almost all job roles to an existing code, bearing in mind that the intention is to group similar jobs into one occupation.

MICT SETA urges all users to interrogate the OFO for possible applicable code(s) before concluding there is no applicable code. If necessary, users can refer to the MICT SETA for guidance. In searching for an appropriate code, it is important to dredge up the structure of the codes. This is to say, codes starting with 1 are "managers" – senior executives, codes starting with 2 are "professionals", codes starting with 3 are "technicians", codes starting with 4 are "clerical", codes starting with 5 are "service workers", and codes starting with 6 are "trades or artisans". Codes starting with 7 are "plant or machine operators". Lastly, codes starting with 8 are "labourers". It is very important to be cautious to not put a junior worker into a senior position.

With the IT sub-sector, practitioners must look beyond the "trendy" job title and examine the tasks required by the role. It has been noticed before that conflicts have risen following the unselective use of titles such as 'architect', and 'developer'. In the IT field, architects are designers and developers are the ones who turn design into reality. Unfortunately, the OFO codes 251201-251203 have completely confused these roles in the specialisations and descriptors attached. Clarity is provided on pages 6 above. The MICT SETA will work with DHET to improve the descriptors for these and other codes. If a user identifies an absolutely unique occupation, application for a new code can be made to MICT SETA, SSP Department. If the department agrees, the application will be forwarded to DHET to allocate the new code.

5. Common OFO codes for the MICT SETA sub-sectors

The Codes listed in this section have been identified to be commonly used for occupations/job titles. The list is not intended to be exhaustive but does cover over 90% of the job roles found in the MICT sub-sectors.

Practitioners should note that there is considerable overlap between the sub-sectors for certain occupations. For example, some advertising companies employ people engaged in video/TV production. Suitable occupation codes will be found in the relevant Media grouping. Furthermore, many occupations are common to all business types across all sectors. Typically, these include senior management and administrative roles. Codes for these occupations are not unique to MICT sub-sectors; below in table 2 is a condensed list:

TABLE 2: OCCUPATIONS APPLICABLE ACROSS ALL SECTORS

Code	Occupation	
2015-112101	Director (Enterprise / Organization)	
2015-121101	Finance Manager	
2015-121102	Payroll Manager	
2015-121103	Credit Manager	
2015-121104	Internal Audit Manager	
2015-121201	Personnel / Human Resource Manager	
2015-121202	Business Training Manager	
2015-121204	Recruitment Manager	
2015-121206	Health and Safety Manager	
2015-121901	Corporate General Manager	
2015-121902	Corporate Services Manager	
2015-121904	Contract Manager	
2015-121906	Franchise Manager	
2015-134904	Office Manager	
2015-243202	Marketing / Communication Strategist	
2015-243203	Corporate Communication Manager	
2015-331301	Bookkeeper	
2015-332302 Purchasing Officer		
2015-334101 Office Supervisor		
2015-334102	Office Administrator	
2015-334302	Personal Assistant	
2015-431101	Accounts Clerk	
2015-431301	Payroll Clerk	
2015-432101	Stock Clerk / Officer	
2015-432102	Dispatching and Receiving Clerk / Officer	
2015-441601	Human Resources Clerk	
2015-441602 Skills Development Administrator		
2015-732101	Delivery Driver	
2015-811201	Commercial Cleaner	

The following tables show occupations and specialisations. Please note that these are not exhaustive lists but to clarify where necessary.

TABLE 3: ADVERTISING

Code	Occupation	Specialisations
2015-122201		Account Director, Account Manager, Creative Director,
	Advertising & Public Relations Manager	Head of Content, Media Director, Strategy Director
2015-243101		Community Manager, Creative Strategist, Creative
	Advertising Specialist	Technologist, Copywriter, Digital Campaign Manager,
		Insights Executive, Media Planner, PR Consultant,
		Strategic Planner
2015-122105	Customer Service Manager	Client Service Director
2015-216601	Graphic Designer	Animator, Art Director, Content Developer, Designer,
		Finished Artist, DTP Operator
2015-216603		
		Instructional Designer, Interactive Media Designer,
	Multimedia Designer	Digital Media Designer, Multimedia Artist
2015-121905		
	Programme or Project Manager	Project manager, Traffic manager
2015-441903		
	Programme or Project Administrator	Practice & Project Administrator, Traffic Assistant

While many occupations under this heading are easy to separate into sub-sectors, a few are more generic to the media environment, some are found in Advertising. Examples can be seen in the table 4 below:

TABLE 4: MEDIA

Code	Occupation	Specialisations
		Animator, Art Director, Content Developer, Designer, Finished Artist,
2015-216601	Graphic Designer	DTP Operator
2015-216602	Illustrator	Art Director ,Finished Artist, Digital Media Designer
		Instructional Designer, Interactive Media Designer, Digital Media
2015-216603	Multimedia Designer	Designer, Multimedia Artist
2015-251301	Multimedia Specialist	Computer Animator, Game developer, web developer
2015-265412	Media Producer	Head of Content, Media Director, Strategy Director

This section focuses on the roles specific to the creation of content using film or video (TV) technologies. Outlined below in table 5 is a condensed list:

TABLE 5: FILM AND TV

Code	Occupation
2015-265401	Director (Film, Television, Radio or Stage)
2015-265402	Director of Photography
2015-265403	Film and Video Editor
2015-265405	Technical Director
2015-265406	Video Producer
2015-265408	Casting Director
2015-265409	Film and Television Production Manager
2015-265411	Location Manager (Film or Television)
2015-343902	Light Technician
2015-343908	Film Technician

The focus in this section is specific to 'Broadcasting', i.e. the transmission of content by a TV or Radio station directed to viewers/listeners who tune in to the relevant channel.

TABLE 6: BROADCASTING

Code	Occupation
30.00	
2015-265404	Program Director (Television or Radio)
2015-265410	Radio or Television Programme Organiser
2015-265601	Radio Presenter
2015-265602	Television Presenter
2015-343903	Stage Manager
2015-352101	Broadcast Transmitter Operator
2015-352104	Television Equipment Operator
2015-352105	Radio Station Operator
2015-862924	Stage or Studio Hand

This section focuses on the roles that are specific to journalism, i.e. the gathering of information about people, places and events and compiling reports for presentation on various media platforms. Table 7 below shows occupations linked to codes and specialisations:

TABLE 7: JOURNALISM

Code	Occupation	Specialisation
2015-134917	Publisher	Management
		Editor
2015-264202	Newspaper or Periodical Editor	
		Journalist
2015-264203	Print Journalist	
		Journalist
2015-264204	Radio Journalist	
		Journalist
2015-264205	Television Journalist	
		Journalist
2015-264206	Critic	

This section focuses on linking OFO codes to job titles by grouping. The below table illustrates this in a more accurate and efficient way.

TABLE 8: INFORMATION & COMMUNICATIONS TECHNOLOGY AND ELECTRONICS

Code	Job Title	Group
		112 - Senior Management
112101	Director (Enterprise / Organisation)	
		121 - Management roles - General
121904	Contract Manager	
121908	Quality Assurance Manager	
		122 - Management roles - Sales & Marketing
122101	Sales and Marketing Manager	
122103	Director of Marketing	
122105	Customer Service Manager	
		132 - Engineering & Technicians
132104	Engineering Manager	
132201	Hardware Technician (Skill Level 4)	
		133 - IT Management
133101	Chief Information Officer	
133102	ICT Project Manager	
133103	Data Management Manager	
133104	Application Development Manager	
133105	Information Technology Manager	
133106	Information Systems Director	
		143 - Facilities & Services Management
143901	Facilities Manager	
143905	Call or Contact Centre Manager	
		212 - Telecommunications Engineer
	Telecommunications Field Engineer (Skill Level	
212405	4)	
		215 - Electronics Engineer

Electronics Engineering Technologist 216- Graphics 216- Graphics 216- Graphics 216- Graphics 216- Graphics 216- Graphics 224701 Multimedia Specialist (Skill Level 5) Multimedia Designer (Skill Level 5) *These occupations belong in the 2166 Unit. 225 - Customer Support 225- Customer Support 225- Customer Support 225- Customer Support 225- Customer Support 227- Customer Support 228- Network Administrator 232- Network Administrator 232- Network Administrator 232- Network Administrator 232- Training 235- Training 242- Consulting 242- Consulting 242- Consulting 242- Consulting 242- Consulting 243- ICT Sales 251- Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Specurity Architect 251201 Systems Architect 251201 Systems Architect 251202 Programmer 251203 Developer Programmer 251401 Applications Poperammer	215201	Electronics Engineer	
216601 Graphic Designer 224701 Multimedia Specialist (Skill Level 5) Multimedia Designer (Skill Level 5) Multimedia Designer (Skill Level 5) 312901 *These occupations belong in the 2166 Unit. 225 - Customer Support 225202 ICT Customer Support Officer (Skill Level 4) 232 - Network Administrator 232403 Network Administrator (Skill Level 5) 235 - Training 242 - Consulting 243 - Consultin	215202	Electronics Engineering Technologist	
224701 Multimedia Specialist (Skill Level 5) Multimedia Specialist (Skill Level 5) *These occupations belong in the 2166 Unit. 225 - Customer Support 225202 ICT Customer Support Officer (Skill Level 4) 232 - Network Administrator 232403 Network Administrator (Skill Level 5) 235 - Training 235- Training 235- Training 242 - Consulting 243 - ICT Sales 243401 ICT Account Manager 243402 ICT Business Development Manager 243403 ICT Sales Representative 243403 ICT Sales Representative 251201 Security Architect 251201 Security Architect 251201 Systems Architect 251201 Systems Architect 251201 Systems Architect 251202 Programmer Analyst 251203 Developer Programmer 251203 Developer Programmer 251204 Developer Programmer 251204 Developer Programmer 251203 Developer Programmer 251204 Developer Programmer 251205 Developer Programmer 251206 Developer Programmer 251207 Developer Programmer 251208 Developer Programme			216 - Graphics
Multimedia Designer (Skill Level 5) *These occupations belong in the 2166 Unit. 225- Customer Support 225- 2202 ICT Customer Support Officer (Skill Level 4) 232 - Network Administrator 232403 Network Administrator (Skill Level 5) Code still to be identified 235- Training 235- Training 242 - Consulting Amangement Consultant 242101 Management Consultant Organisation and Methods Analyst 243 - ICT Sales 243401 ICT Account Manager 243402 ICT Business Development Manager 243403 ICT Sales Representative 1CT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Systems Architect 251201 Systems Architect 131103 Software Engineer (Skill Level 5) ICT Systems Analyst 1CT Systems Analyst Developer Programmer Developer Programmer	216601	Graphic Designer	
*These occupations belong in the 2166 Unit. 225 - Customer Support 225 - Customer Support 225 - Customer Support 225 - Customer Support 232 - Network Administrator 232 - Network Administrator 232 - Network Administrator 232 - Network Administrator 235 - Training 235 - Training 235 - Training 242 - Consulting 242 - Consulting 242 - Consulting 242 - Consulting 243 - ICT Sales 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251 - Software Engineering)	224701	Multimedia Specialist (Skill Level 5)	
225 - Customer Support 225 - Customer Support 225 - Customer Support 225 - Customer Support 232 - Network Administrator 232403		Multimedia Designer (Skill Level 5)	
CT Customer Support Officer (Skill Level 4) 232 - Network Administrator	312901	*These occupations belong in the 2166 Unit.	
232 - Network Administrator 232403 Network Administrator (Skill Level 5) Code still to be identified 235 - Training 235 - Training 242 - Consulting 242 - Consulting 242 - Consulting 243 - ICT Sales 251 - Software & Applications Developers & Analysts (inc. 131 Software Engineering) 251 - Software Engineering) 251 - Software Engineering 251 - Software Engineering 251 - Software Engineering			225 - Customer Support
232403 Network Administrator (Skill Level 5) Code still to be identified 235601 ICT Trainer 242 - Consulting 243 - ICT Sales 251 - Software Engineering) 251 - Software Engineering	225202	ICT Customer Support Officer (Skill Level 4)	
Code still to be identified 235601 ICT Trainer 242 - Consulting 242 - Consulting 242 - Consulting 242 - Consulting 243 - ICT Sales 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251 - Software & Applications Developers & Analyst (Inc. 131 Software Engineering) 251 - Software & Applications Developers & Analyst (Inc. 131 Software Engineering) 251 - Software Engineering)			232 - Network Administrator
1CT Trainer 242 - Consulting 243 - ICT Sales 243 - IC	232403	Network Administrator (Skill Level 5)	
242 - Consulting 242101	Code still to be identified		235 - Training
242101 Management Consultant 242102 Organisation and Methods Analyst 243 - ICT Sales 243401 ICT Account Manager 243402 ICT Business Development Manager 243403 ICT Sales Representative 522304 ICT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 251201 Systems Architect 251201 Systems Architect 251201 Systems Analyst 131103 Software Engineer (Skill Level 5) 251101 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	235601	ICT Trainer	
242102 Organisation and Methods Analyst 243 - ICT Sales 243401 ICT Account Manager 243402 ICT Business Development Manager 243403 ICT Sales Representative 522304 ICT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 131103 Software Engineer (Skill Level 5) 251202 Programmer Analyst Developer Programmer			242 - Consulting
243 - ICT Sales 243401 ICT Account Manager 243402 ICT Business Development Manager 243403 ICT Sales Representative 522304 ICT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 251201 Systems Architect 251201 Systems Architect 251201 Systems Architect 251201 Forgrammer (Skill Level 5) 251202 Programmer Analyst 251203 Developer Programmer	242101	Management Consultant	
243401 ICT Account Manager 243402 ICT Business Development Manager 243403 ICT Sales Representative 522304 ICT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 3251201 Systems Architect 3251201 ICT Systems Analyst 3251201 Software Engineer (Skill Level 5) 3251201 Programmer Analyst 3251202 Programmer	242102	Organisation and Methods Analyst	
243402 ICT Business Development Manager 243403 ICT Sales Representative 522304 ICT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 251201 Systems Architect 251201 Systems Architect 251201 Total Systems Architect 251201 Systems Architect 251201 Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer			243 - ICT Sales
CT Sales Representative S22304 ICT Sales Assistant	243401	ICT Account Manager	
522304 ICT Sales Assistant 251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 251201 Systems Architect 251201 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	243402	ICT Business Development Manager	
251 - Software & Applications Developers & Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 251201 Systems Architect 251201 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	243403	ICT Sales Representative	
Analysts (Inc. 131 Software Engineering) 251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 131103 Software Engineer (Skill Level 5) 251101 ICT Systems Analyst 251202 Programmer Analyst Developer Programmer	522304	ICT Sales Assistant	
251201 Data Architect 251201 Security Architect 251201 Enterprise Architect 251201 Systems Architect 131103 Software Engineer (Skill Level 5) 251101 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer			251 - Software & Applications Developers &
251201Security Architect251201Enterprise Architect251201Systems Architect131103Software Engineer (Skill Level 5)251101ICT Systems Analyst251202Programmer Analyst251203Developer Programmer			Analysts (Inc. 131 Software Engineering)
251201 Enterprise Architect 251201 Systems Architect 131103 Software Engineer (Skill Level 5) 251101 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	251201	Data Architect	
251201 Systems Architect 131103 Software Engineer (Skill Level 5) 251101 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	251201	Security Architect	
131103 Software Engineer (Skill Level 5) 251101 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	251201	Enterprise Architect	
251101 ICT Systems Analyst 251202 Programmer Analyst 251203 Developer Programmer	251201	Systems Architect	
251202 Programmer Analyst 251203 Developer Programmer	131103	Software Engineer (Skill Level 5)	
251203 Developer Programmer	251101	ICT Systems Analyst	
· · ·	251202	Programmer Analyst	
251401 Applications Programmer	251203	Developer Programmer	
• • •	251401	Applications Programmer	

251901	Quality Assurance Analyst (Computers)	
	Systems Analyst (Skill Level 5) (See 251101	
261303	above)	
313101	ICT Business Analyst (Skill Level 5)	
		252 - Database, Networks, Security
252101	Database Designer and Administrator	
252201	Systems Administrator	
252301	Computer Network and Systems Engineer	
252302	Network Analyst	
252901	ICT Security Specialist	
252902	Technical (ICT) Support Services Manager	
		261 - Technical
261102	Technical Writer (Skill Level 5)	
		262 - Support Services
	Technical Support Services Manager (Skill Level	
262103	5)	
262202	Information Services Manager	
		311 - Electronics
311401	Electronic Engineering Technician	
		313 - Telecommunications
	Telecommunications Computer Systems	
263205	Technician	
	Telecommunications Network Planner (Skill	
313105	Level 4)	
313202	Telecommunications Technical Officer or	
	Technologist (Skill Level 4)	
		333 - Business Support
333910	Business Support Coordinator	
		351 - Computer Operations
351101	Computer Operator	
351201	ICT Communications Assistant	

351301	Computer Network Technician	
		413 - Data Entry
413201	Data Entry Operator	
		422 - Call/contact centre
422201	Inbound Contact Centre Consultant	
422204	Contact Centre Resource Planner	
422206	Call or Contact Centre Agent	
524401	Call Centre Salesperson	
		672 - Cabling & Mechanics
672103	Business Machine Mechanic	
672201	Data and Telecommunications Cabler	
		862 - Electronics & Telecommunications
	Electronics and Telecommunications Trades	
862922	Assistant	

6. Amending the OFO

Prior to 2016, DHET had instituted a standard process and format for SETAs to recommend amendments to the OFO. Amendments received were processed by DHET on an annual basis. These annual updates reflected changes or additions identified by SETAs. These updates were included in the Sector Skills Plan (SSP) annual updates.

In 2016, DHET moved away from an annual update to a continuous update process, which allowed requests for changes to be submitted at any time. Currently, as part of DHET's evaluation process, any changes to information submitted by SETAs is shared and communicated. This is to support SETAs to be able to manage their records accordingly.

MICT SETA adopts an approach of liaising with its stakeholders regularly to ensure that there is transparency in communication, keeping them updated with workplace needs required to deliver outputs in their organisations. It is important to note that workplace outputs needs, and how they relate to Occupations, form the cornerstone of updating the OFO.

Furthermore, stakeholders are requested to interact with the MICT SETA SSP department on any issues relating to the use of OFO codes. Evident from the research in this document, there are issues of duplication and conflict relating to the OFO codes covering the MICT sub-sectors. MICT SETA SSP unit has commissioned a report highlighting these issues and putting forward recommendations for improvement.

In examining the use of OFO codes, it was important to detail this per subsector. The table below shows a link between OFO codes, descriptors per sub-sectors. Some overlap between what should be discrete occupations.

TABLE 9: OFO CODES PER SUB-SECTOR

OFO Code	Description	Subsector
2015-112101	Director (Enterprise / Organisation)	All
2015-121901	Corporate General Manager	All
2015-121905	Programme or Project Manager	All
2015-121908	Quality Systems Manager	All
2015-121909	Sustainability Manager	All
2015-122101	Sales and Marketing Manager	All
2015-122102	Sales Manager	All
2015-122103	Director of Marketing	All
2015-122104	Interactive and Direct Marketing Strategist	Advertising
2015-122105	Customer Service Manager	All
2015-122201	Advertising and Public Relations Manager	Advertising
2015-122301	Research and Development Manager	All
2015-132101	Manufacturer	Electronics
2015-132102	Production / Operations Manager (Manufacturing)	Electronics
2015-132104	Engineering Manager	Electronics
2015-132106	Manufacturing Quality Manager	Electronics
2015-132401	Supply and Distribution Manager	Electronics
2015-132402	Logistics Manager	Electronics
2015-132403	Road Transport Manager	Electronics
2015-132404	Warehouse Manager	Electronics
2015-133101	Chief Information Officer	ICT
2015-133102	ICT Project Manager	ICT
2015-133103	Data Management Manager	ICT

2015-133104	Application Development Manager	ICT
2015-133105	Information Technology Manager	ICT
2015-133106	Information Systems Director	ICT
2015-134904	Office Manager	All
2015-134915	Operations Manager (Non-Manufacturing)	All
2015-134916	Operations Foreman (Non-Manufacturing)	All
2015-134917	Publisher	Journalism
2015-143901	Facilities Manager	ICT
2015-212102	Mathematician	ICT
2015-212103	Statistician	ICT
2015-214101	Industrial Engineer	Electronics
2015-214102	Industrial Engineering Technologist	Electronics
2015-214103	Production Engineer	Electronics
2015-214104	Production Engineering Technologist	Electronics
2015-214105	Energy Efficiency Manager	All
2015-214401	Mechanical Engineer	All
2015-214402	Mechanical Engineering Technologist	All
2015-214909	Microsystems Engineers	Electronics
2015-215101	Electrical Engineer	ICT
2015-215102	Electrical Engineering Technologist	ICT
2015-215103	Energy Engineer	ICT
2015-215104	Energy Engineering Technologist	ICT
2015-215201	Electronics Engineer	Electronics
2015-215202	Electronics Engineering Technologist	Electronics
2015-215301	Telecommunications Engineer	ICT
2015-215302	Telecommunications Engineering Technologist	ICT
2015-215303	Telecommunications Network Engineer	ICT
2015-215304	Telecommunications Field Engineer	ICT

2015-216101	Architect	ICT
2015-216601	Graphic Designer	Media
2015-216602	Illustrator	Media
2015-216603	Multimedia Designer	Media
2015-216604	Web Designer	ICT
2015-226302	Safety, Health, Environment and Quality (SHE&Q) Practitioner	All
2015-226303	Ergonomist	All
2015-235601	ICT Trainer	ICT
2015-242101	Management Consultant	All
2015-242102	Organisation and Methods Analyst	All
2015-243101	Advertising Specialist	Advertising
2015-243102	Market Research Analyst	Advertising
2015-243103	Marketing Practitioner	Advertising
2015-243104	Market Campaign Analyst	Advertising
2015-243201	Communication Coordinator	Advertising
2015-243202	Marketing / Communication Strategist	Advertising
2015-243203	Corporate Communication Manager	Advertising
2015-243204	Event Producer	Advertising
2015-243301	Sales Representative / Salesman (Industrial Products)	All
2015-243401	ICT Account Manager	ICT
2015-243402	ICT Business Development Manager	ICT
2015-243403	ICT Sales Representative	ICT
2015-251101	ICT Systems Analyst	ICT
2015-251201	Software Developer	ICT
2015-251202	Programmer Analyst	ICT
2015-251203	Developer Programmer	ICT
2015-251301	Multimedia Specialist	Media
2015-251302	Web Developer	ICT

2015-251401	Applications Programmer	ICT
2015-251901	Quality Assurance Analyst (Computers)	ICT
2015-252101	Database Designer and Administrator	ICT
2015-252201	Systems Administrator	ICT
2015-252301	Computer Network and Systems Engineer	ICT
2015-252302	Network Analyst	ICT
2015-252901	ICT Security Specialist	ICT
2015-252902	Technical (ICT) Support Services Manager	ICT
2015-262202	Information Services Manager	ICT
2015-264101	Author	Journalism
2015-264102	Book or Script Editor	Journalism
2015-264103	Technical Writer	ICT
2015-264201	Copywriter	Advertising
2015-264202	Newspaper or Periodical Editor	Journalism
2015-264203	Print Journalist	Journalism
2015-264204	Radio Journalist	Journalism
2015-264205	Television Journalist	Journalism
2015-264206	Critic	Journalism
2015-264207	Media Monitor	Advertising
2015-265401	Director (Film, Television, Radio or Stage)	Film TV
2015-265402	Director of Photography	Film TV
2015-265403	Film and Video Editor	Film TV
2015-265404	Program Director (Television or Radio)	Broadcasting
2015-265405	Technical Director	Film TV
2015-265406	Video Producer	Film TV
2015-265407	Police Video Unit Manager and Producer	Film TV
2015-265408	Casting Director	Film TV
2015-265409	Film and Television Production Manager	Film TV

2015-265410	Radio or Television Programme Organiser	Broadcasting
2015-265411	Location Manager (Film or Television)	Film TV
2015-265412	Media Producer	Media
2015-265601	Radio Presenter	Broadcasting
2015-265602	Television Presenter	Broadcasting
2015-311301	Electrical Engineering Technician	Electronics
2015-311303	Energy Efficiency Technician	All
2015-311401	Electronic Engineering Technician	Electronics
2015-311501	Mechanical Engineering Technician	Electronics
2015-311703	Non-Destructive Testing Technician (NDTT)	Electronics
2015-315501	Airborne Electronics Analyst	Electronics
2015-331302	Accounting Technician	ICT
2015-331303	Tax Technician	ICT
2015-331401	Statistical and Mathematical Assistant	ICT
2015-332201	Commercial Sales Representative	All
2015-332205	Manufacturer Representative	Electronics
2015-332302	Purchasing Officer	All
2015-333201	Events Manager	Advertising
2015-333903	Sales Representative (Business Services)	All
2015-333905	Supply Chain Practitioner	All
2015-343902	Light Technician	Film TV
2015-343903	Stage Manager	Broadcasting
2015-343908	Film Technician	Film TV
2015-343909	Microphone Boom Operator	Film TV
2015-351101	Computer Operator	ICT
2015-351201	ICT Communications Assistant	ICT
2015-351301	Computer Network Technician	ICT
2015-351302	Geographic Information Systems Technicians	ICT

2015-351401	Web Technician	ICT
2015-352101	Broadcast Transmitter Operator	Broadcasting
2015-352102	Camera Operator (Film, Television or Video)	Film TV
2015-352103	Sound Technician	Film TV
2015-352104	Television Equipment Operator	Broadcasting
2015-352105	Radio Station Operator	Broadcasting
2015-352106	Production Assistant (Film, Television or Radio)	Film TV
2015-352201	Telecommunications Technical Officer or Technologist	ICT
2015-411102	Back Office Process Consultant	ICT
2015-413201	Data Entry Operator	ICT
2015-522304	ICT Sales Assistant	ICT
2015-662101	Electronic Pre-press	Media
2015-662104	Electronic Originator	Media
2015-662105	Gravure Cylinder Preparation Technician	Media
2015-662106	Process Engraver	Media
2015-662107	Printing Plate Maker	Media
2015-662201	Printing Machinist	Media
2015-662202	Small Offset Lithography Operator	Media
2015-662203	Screen Printing Technician	Media
2015-662204	Lithographic Printing Technician	Media
2015-662205	Continuous Stationery Lithography Technician	Media
2015-662208	Roll Label Machine Technician	Media
2015-662209	Gravure Printing Technician	Media
2015-662212	Rotary Printing and Re-reeling Flexographic Machine Technician	Media
2015-662213	Rotary Printing and Re-reeling Gravure Machine Technician	Media
2015-662216	Commercial Digital Printer	Media
2015-671203	Mechatronics Technician	ICT
2015-671302	Cable Jointer	ICT

2015-672104	Electronic Equipment Mechanician	Electronics
2015-672108	Radiotrician	ICT
2015-672201	Data and Telecommunications Cabler	ICT
2015-672202	Telecommunications Cable Jointer	ICT
2015-672203	Computer Engineering Mechanic / Service Person	ICT
2015-672204	Telecommunications Line Mechanic	ICT
2015-672205	Telecommunications Technician	ICT
2015-672206	Communications Operator	ICT
2015-684912	Photographer's Assistant	Media
2015-718901	Silicon Chip Production Machine Operator	Electronics
2015-718913	Motion Picture Projectionist	Film TV
2015-862918	Electrical or Telecommunications Trades Assistant	ICT
2015-862922	Electronics and Telecommunications Trades Assistant	ICT
2015-862924	Stage or Studio Hand	Broadcasting

7. Comparative exploration of the 2015 and 2017 OFO Codes

While the previous sections reflect on the 2015 version of the OFO codes and their methodical aspects, this section reflects on an ongoing thinking regarding the OFO codes, thus, showing a comparison between the 2015 and 2017 version of the OFO codes. Table 10 below illustrates this in a simplest way.

TABLE 10: OFO 2015 AMENDMENTS

OFO Code	2015 Description	2017 Description	Matching 2017 code
2015-121201	Personnel / Human Resource Manager	Human Resource Manager	2017-121201
2015-216601	Graphic Designer	Digital Artist	2017-216601
2015-243202	Marketing / Communication Strategist	Communication Strategist	2017-243202
2015-252902	Technical (ICT) Support Services Manager	Technical ICT Support Services Manager	2017-252902
2015-264202	Newspaper or Periodical Editor	Editor	2017-264202
2015-264203	Print Journalist	Journalist	2017-264203
2015-264205	Television Journalist	Content Presenter	2017-264205

8. Conclusion

With the need to report accurately on occupation profiles, there is no doubt that MICT SETA needs to continue with the OFO mapping exercise, updating and reviewing existing OFO codes. The mapping exercise was able to identify anomalies in the 2015 version of the OFO codes, also showing a comparative analysis, demonstrating transition of the 'OFO Descriptions, from 2015 to 2017'. This was important to show that there is an ongoing improvement on the content of the OFO and its application in the MICT sector.

To promote consistency and accuracy, there is a need for stakeholders to be in constant communication with the MICT SETA Sector Skills Planning department on any issues relating to OFO codes. This will allow any anomaly identified in the OFO to be communicated as early as possible, preventing variance and conflict in reporting. It is in this case that the SETA urges all its stakeholders to focus on the purpose of using occupation codes rather on the variances that make one employer's terminology unique.