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| MEMORANDUM FROM THE PARLIAMENTARY OFFICE |

**NATIONAL ASSEMBLY**

**FOR WRITTEN REPLY**

**QUESTION 547**

**DATE OF PUBLICATION OF INTERNAL QUESTION PAPER: 03/03/2023**

**INTERNAL QUESTION PAPER NO 6 OF 2023**

**Ms K L Khakhau (DA) to ask the Minister of Higher Education, Science and Innovation: [98] [Question submitted for oral reply now placed for written reply because it is in excess of quota (Rule 137(8))]:**

(a) By what date will the review of the outdated prescribed curriculum for mechatronics students be reviewed and (b) what total number of students are currently enrolled for studies in mechatronics?

**NW599E**

**REPLY:**

Since 2007, when the NC(V) programmes were first introduced, the ***NC(V): Mechatronics*** programme has been offered supported by workshops and equipment that enables the development of relevant skills needed by industry. Many of these workshops match those at some Universities of Technology used by first year students.

Over the past 5 years various components of the ***NC(V): Mechatronics*** programme have been reviewed and updated. These include Practical Assessment Tasks (PATs) and Integrated Summative Assessment Tasks (ISATs) for the following subjects:

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| **Vocational Subject reviewed** | **Implementation date of the reviewed subject** |
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| Mechatronics Systems L2  | 2020 |
| Electro-technology L3  | 2023 |
| Stored Programme Systems L3  | 2023 |
| Machine Manufacturing L3  | 2023 |
| Mechatronic Systems L3  | 2023 |
| Electro-technology L4  | 2017 |
| Stored Programme Systems L4  | 2017 |
| Computer Integrated Manufacturing L4  | 2017 |
| Mechatronic Systems L4  | 2017 |

From 2019 – 2022, the DHET developed an additional stream in the ***NC(V): IT & Computer Science*** programme which focuses on Robotics. This Robotics programme is implemented in 10 TVET colleges from January 2023, including Capricorn TVET College.

In preparation for the implementation of the Robotics programme (**which is** **an integration of Mechatronics and Software Programming**), TVET colleges had to upgrade their Mechatronics workshops so that they can accommodate equipment to facilitate learning in both **Mechatronics** and **Robotics**. These workshops were then earmarked for use by both the Mechatronics and Robotics programmes.

The assertion that the curriculum of the ***NC(V): Mechatronics*** programme is irrelevant / outdated is incorrect. The curriculum does not specify the brand or version of equipment to be used in teaching. A standard resource list is provided to colleges providing minimum requirements for facilitating learning in a programme. The curriculum states the specific learning outcomes that have to be achieved and which will be assessed across all colleges offering the programme, irrespective of the choice of equipment they are using.

An illustration of this aspect of national curriculum development is that, for an example: in the Computer Practice and Computer Literacy curricula there would not be mention made of Microsoft Office. The learning outcomes will describe what students need to achieve / learn e.g. how to compile and edit documents, to capture and process data and statistics, do presentations, etc without prescribing the specific software package.

The DHET endeavours to continue supporting TVET colleges in aligning their Programmes and Qualifications Mix (PQMs) with the needs of industry. Linking programme offerings with priority skills needs reflected in national and local initiatives such as Local Development Plans, Occupations in High Demand (OIHD), the South African Economic Reconstruction and Recovery Plan, and the National Digital Skills Strategy.