

THE NATIONAL COUNCIL FOR TECHNICAL EDUCATION



Information on Competence Based Curriculum Development

*“Striving for
World-Class Excellence in
Technical Education and Training”*

1.0 INTRODUCTION

The National Council for Technical Education (NACTE) is a statutory body established by Act of Parliament, Cap. 129 to oversee and coordinate provision of technical education and training provided by non-university tertiary institutions.

Section 11 of the Act of Parliament empowers the Council to approve curricula, examinations, and awards for autonomous non-University technical institutions.

Effective regulation and coordination of technical education and training in the country mandated to The National Council for Technical Education (NACTE) cannot be achieved if curricula for institutions do not address the needs of the society. The reason is that curriculum plays a central role towards production of skilled, competent and knowledgeable citizens to meet the demands of the country's social and economic development. A curriculum is 'a well planned and structured document showing what a learner (student) is expected to learn and achieve in terms of skills, knowledge and understanding and describes all aspects of teaching and learning such as learning strategies, assessment methods and the intended outcomes from learning'. It is through curriculum that:

- a) Purpose and values of learning can be realized.
- b) Curriculum contents can be identified to support attainment of desired competencies;
- c) Learners are analyzed against required competencies at a given level of training
- d) Activities, methods and media for teaching and learning are decided; and

- e) Means of assessment are provided in order to measure effectiveness of educational delivery.

NACTE has defined and established a range of National Technical AWARDS (NTA) to be conferred to various fields of technical education and training. These awards are competence base and designed to testify that the holders possess the requisite skills and knowledge necessary to flexibly apply competences in the relevant occupational sectors.

The enabling tasks and environment for one to realize the outcomes specified for a particular NTA level are provided through Competence Based Education and Training (CBET) curriculum. Hence, every technical education and training institution adopting the NTA system must have Competence/outcomes based curriculum in place.

2.0 COMPETENCE/OUTCOMES BASED CURRICULUM DEVELOPMENT PROCESS

To develop a curriculum that will provide required competences, it requires an institution or competent authority to pass through a series of stages which are;

- a) Planning;
- b) Conducting situation analysis;
- c) Formulating learning outcomes, assessment criteria, teaching and learning strategies for achieving the curriculum goals and objectives;
- d) Modularization and semesterization of curriculum; and
- e) Approval and validation of curricula;

Curriculum can be developed at either National or Institutional level. In either case, the procedure is the same except that apart from assisting institutions in curriculum development process, NACTE is also mandated to validate curricula that have been developed or revised by technical institutions themselves or through any other responsible organ.

2.1 Curriculum Planning

Planning is a process of making detailed arrangement of things to be done in the future. Since curriculum is regarded as a yardstick for the learner's competences in terms of skills, knowledge and understanding, it is important that careful planning ensures that curriculum development is done effectively, resources that are needed are obtained and the ultimate goals are realized in an optimum way. Activities involved in the planning stage are:

- a) Establishment of curriculum development organs;
- b) Clarification of global objectives and the scope of the curriculum
- c) Description of the methodology;
- d) Establishment of the financial implication;
- e) Developing a format of proposal to develop or review curriculum and;
- f) Processing for approval of curriculum by relevant authorities.

2.2 Situation Analysis towards Curriculum Development or Review

Situational analysis is a process of undertaking a detailed study of all the conditions that exist at a particular time and place in order to understand something. In this case situational analysis is done to:

- a) Identify the current and future needs of the target market and profession; and
- b) Assess and establish human and physical resources needed for effective teaching and learning.

The critical and conditional factors for considerations in the situational analysis are:

- i) Vision and Mission of respective technical institution;
- ii) Employer needs;
- iii) Professional needs;
- iv) Societal needs;
- v) NACTE norms;
- vi) Learners' constraints;
- vii) Teaching and Learning resources;
- viii) Feedback from employers, graduates, staff and other Stakeholders; and
- ix) Feedback from external assessors.

2.3 Formulation of Learning Outcomes, Tasks, Assessment Criteria, Methods and Instruments

The actual curriculum development is performed by the trainers and subject experts after stakeholders have delineated the Principal Outcomes, Credit values for each principal outcome, Assessment

Criteria and the Purpose of Qualification. The four components form the Qualification Standard.

The curriculum developers formulate enabling outcomes (outcomes that enable achievement of principal outcomes), sub-enabling outcomes (specific lower level outcomes that enable achievement of enabling outcomes) and tasks to be performed by learners, assessment criteria, methods and instruments.

The learning outcomes must describe what a learner will be able to do in the whole training programme and they must be verifiable and assessable.

In formulating learning outcomes, assessments and credit allocation, curriculum developers are guided by NTA framework that has 7 levels linked to National Vocational Awards (NVA) system; and Competence level descriptors which are broad statements describing what a learner is capable of doing in the world of work.

While related tasks are statements that show what and how learners will be doing to achieve the sub-enabling outcomes, the assessment criteria provide context for learners to achieve the sub-enabling outcomes stated in the curriculum. Each criterion should be benchmarked to indicate the learner's mastery of given competences.

2.4 Formulating Course Modules

Modularization is the identification and clustering of closely related sub-enabling outcomes into independent course modules. A module is a learning package with the following key components; a unit of assessment, method of assessment for measuring attainment, learning materials to be used in the module and appropriate learning context.

In structuring the curriculum, credits must be assigned to modules. A credit is a tool for equating the learning time required to achieve the specified outcome(s). It plays a key role in rewarding incremental progress of learners, facilitating student transfer and recognizing prior

learning. A credit awarded as an evidence for learning achievement and is derived through estimation of notional learning time. According to NACTE standards, a credit is equivalent to 10 notional hours. NACTE procedures provide minimum credit at each level as follow:

NTA Level	Overall Minimum Credits	Minimum Credits at that Level	Award	Competence descriptors
NTA 4	120	120	Basic Technician Certificate	Apply knowledge and skills at routine level
NTA 5	120	120	Technician Certificate	Apply knowledge and skills in a range of activities, some of which are non-routine and be able to assume some operational responsibilities
NTA 6	240	120	Ordinary Diploma	Apply knowledge and skills in broad range of work activities, most of which are non-routine
NTA 7	360	360	Higher Diploma	Apply knowledge, skills and understanding in a range of complex technical activities, high degree of personal responsibility and some responsibility for the work of other
NTA 8	480	120	Bachelor Degree	Apply knowledge, skills and understanding in wide and unpredictable variety of contexts with substantial personal responsibility, responsibility for the work of others and responsibility for the allocation of resources, policy, planning, execution and evaluation

2.5 Curriculum Approval

One of the functions of NACTE as stipulated in the Act, (No. 9 of 1997) is to validate courses leading to the Council's awards. This implies that all curricula that are developed/reviewed to offer National Technical Awards (NTA) must be validated.

While curriculum validation is the responsibility of a statutory regulatory body, the approval process begins from institution Governing/Advisory Board. Curriculum approval and validation are meant to check whether the curriculum is in line with the vision and mission of the relevant implementing institution and that it has adequately addressed the needs of employers, profession and the society as per NACTE norms.

What to evaluate?

- a) Whether the curriculum is in line with the vision and mission of an institution;
- b) Completeness of Situation Analysis report;
- c) Adequacy of curriculum in addressing the needs of employer profession and society as per NACTE norms; and
- d) Completeness of curriculum information report showing:-
 - Qualification, purpose of qualification, NTA level, level descriptors.
 - NCTE standards and selected enabling outcomes.
 - Assessment criteria and their benchmarking.
 - Course modules and hour allocation.

- Eligibility for higher awards (higher qualification that a learner is eligible upon successful completion of the programme)

3.0 WHAT MAKES COMPETENCE/OUTCOME – BASED EDUCATION WORK

Scholars have identified four key points that make Competence/Outcome-based education work:

- (a) Clear identification of what a student must learn;
- (b) Assessment of progress basing on students' demonstrable Achievement;
- (c) Use of multiple instructional and assessment strategies in Order to meet the needs of each student; and
- (d) Providing adequate time and assistance that each learner can Reach his/her maximum potential.

4.0 CONCLUSION

CBET system brings hope of rendering learning process and outcomes that are measurable and manageable in the learner's life span, and which bridges the gap between school system and labour market. Studies have shown that graduates educated under CBET system perform better in jobs required by modern organization's than those with traditional qualification.

Contact Address

Executive Secretary,
National Council for Technical Education (NACTE),
P.O. Box 7109,

Dar-es-Salaam, Tanzania.

Phone: +255 – 22 – 2780077

+255 – 22 - 2780312

Fax: +255 – 22 – 2780060

Email: info@nacte.go.tz

Website: www.nacte.go.tz

