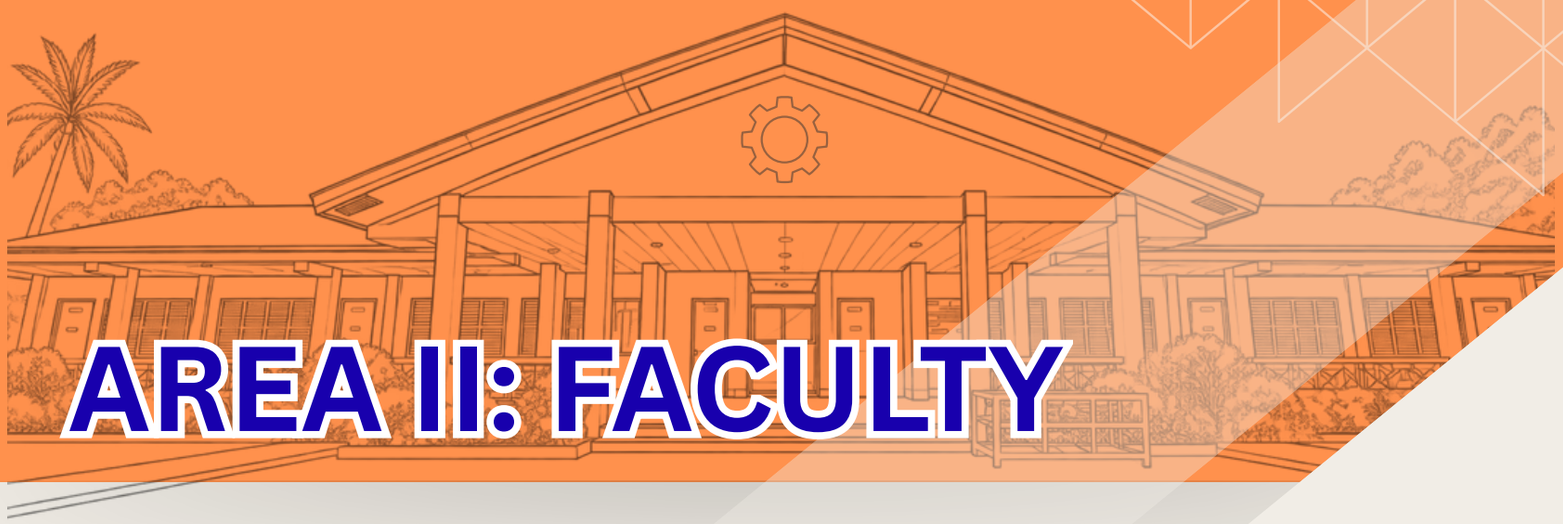
UNIVERSITY OF SOUTHERN MINDANAO
COLLEGE OF TRADES AND INDUSTRIES

AACCUP

LEVEL 1 SURVEY VISIT

BTVTED

BACHELOR OF
TECHNICAL - VOCATIONAL
TEACHER EDUCATION



AREA II: FACULTY

PARAMETER A:
ACADEMIC QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

SYSTEM-INPUTS AND PROCESSES

S.2.3.Specialization

Republic of the Philippines
OFFICE OF THE PRESIDENT
COMMISSION ON HIGHER EDUCATION

Commission on Higher Education
OFFICIAL RELEASE
CHED Central Office
RECORDS SECTION
C.P. Garcia Ave., U.P. Diliman, Q.C.

CHED MEMORANDUM ORDER (CMO)
No. 79
Series of 2017

SUBJECT: POLICIES, STANDARDS AND GUIDELINES FOR THE BACHELOR OF TECHNICAL-VOCATIONAL TEACHER EDUCATION (BTVTEd)

In accordance with the pertinent provisions of Republic Act (RA) No. 7722, otherwise known as the "*Higher Education Act of 1994*," and in pursuance of an outcomes-based quality assurance system as advocated under CMO 46 s. 2012, and by virtue of Commission *en banc* (CEB) Resolution No. 724-2017 dated October 3, 2017, the following policies, standards and guidelines (PSGs) are hereby adopted and promulgated by the Commission.

ARTICLE I
INTRODUCTION

Section 1 Rationale

Based on the *Guidelines for the Implementation of CMO No. 46 s. 2012*, this PSG implements the "shift to learning competency-based standards/outcomes-based education" in response to the 21st Century Philippine Teacher Education framework. Furthermore, **this PSG is anchored on the salient features of K to 12 Enhanced Curriculum (RA 10533),** the **Philippine Qualifications Framework (EO 83, s. 2012),** the **National Competency-Based Teacher Standards (NCBTS)** now the **Philippine Professional Standards for Teachers (D.O. 42, s. 2017)** and other relevant documents. It specifies the 'core competencies' expected of **Bachelor of Technical-Vocational Teacher Education (BTVTEd)** graduates "regardless of the type of HEI they graduate from." However, in "recognition of the spirit of outcomes-based education and of the typology of HEIs," this PSG also provides "ample space for HEIs to innovate in the curriculum in line with the assessment of how best to achieve learning outcomes in their particular contexts and their respective missions."

Quality pre-service teacher education is a key factor in the quality of Philippine education. In the Philippines, the pre-service preparation of teachers is a very important function and responsibility that has been assigned to higher education institutions. All efforts to improve the quality of education in the Philippines are dependent on the service of teachers who are properly prepared to undertake the various important roles and functions of teachers. As such, it is of utmost importance that the highest standards are set in defining the objectives, components, and processes of the pre-service technical teacher education curriculum.

The main concern of the **BTVTEd** program is the preparation of teachers in TLE for Grades 9-10, senior high school for the technical-vocational Livelihood (TVL) track, technical-vocational education and training (TVET), and for higher education institutions offering BTVTEd and other allied programs.

This group of teachers is equipped not only with strong theoretical understanding of teaching and technology, but also with practical exposure in industry. Specifically, the BTVTEd Program is expected to produce teachers who can assume the following major roles:

a. effective synthesizers of organized knowledge to allow analytical and critical thinking;
b. efficient and effective promoters and facilitators of learning to enable the learners to develop to the fullest their potential for a continuing pursuit of lifelong learning;
c. committed humanists whose clear understanding and appreciation of human ideals and values inspire learners to realize their potential;
d. model teachers with high regard for learning imbued with proper work attitude and values as practiced in industry; and
e. nationally certified trainers in their fields of specialization
f. implementers of TVTE innovative approaches/insights, best practices in the context of K-12 TVL track

ARTICLE II
AUTHORITY TO OPERATE

Section 2 **Government Recognition**

All Higher Education Institutions (HEIs) intending to offer **Bachelor of Technical-Vocational Teacher Education (BTVTEd)** must first secure proper authority from the Commission in accordance with these PSGs. All PHEIs with an existing **Bachelor of Technical Teacher Education (BTTE)** and **Bachelor of Industrial Education (BSIE)** programs are required to shift to an outcomes-based approach based on this PSG. State universities and colleges (SUCs), and local colleges and universities should likewise strictly adhere to the provisions in these policies and standards.

ARTICLE III
GENERAL PROVISIONS

Per section 12 of RA 7722, the higher education institution shall exercise academic freedom in its curricular offerings but must comply with the minimum requirements to specific academic programs, the general education distribution requirements and the specific professional courses.

Section 3 This Article gives minimum standards and other requirements and prescriptions. The minimum standards are expressed as a minimum set of desired program outcomes which are given in Article IV Section 6. CHED designed a curriculum to attain such outcomes. A **sample** curriculum is shown in Article V Section 9. The number of units of this

curriculum is here prescribed as the "minimum unit requirement" under Section 13 of RA 7722. In designing the curriculum CHED employed a curriculum map as a **sample** which is shown in Article V Section 10.

Using a learner-centered/outcomes-based approach, CHED also determined appropriate curriculum delivery methods shown in Article V Section 11. The sample course syllabus given in Article V Section 12 show some of these methods.

Based on the curriculum and the means of its delivery, CHED determined the physical resource requirements for the library, laboratories and other facilities and the human resource requirements in terms of administration and faculty. See Article VI.

Section 4 The HEIs are allowed to design curriculum suited to their own contexts and missions provided that they can demonstrate that the same leads to the attainment of the required minimum set of outcomes, albeit by a different route. In the same vein, they have latitude in terms of curriculum delivery and in terms of specification and deployment of human and physical resources as long as they can show that the attainment of the program outcomes and satisfaction of program educational objectives can be assured by the alternative means they propose.

HEIs shall use the **CHED Implementation Handbook for Outcomes-Based Education (OBE)** and the **Institutional Sustainability Assessment (ISA)** as guide in making their submissions for Article VII.

ARTICLE IV
PROGRAM SPECIFICATION

Section 5 **Program Description**

5.1. Degree Name

The program discussed herein shall be called **Bachelor of Technical-Vocational Teacher Education (BTVTEd) with specialization in:**

a. Automotive Technology
b. Electronics Technology
c. Electrical Technology
d. Mechanical Technology
e. Civil and Construction Technology
f. Welding and Fabrication Technology
g. Heating, Ventilating and Air Conditioning Technology
h. Food and Service Management
i. Garments, Fashion and Design
j. Beauty Care and Wellness
k. Animation
l. Computer Hardware Servicing
m. Computer Programming

n. Animal Production
o. Agricultural Crops Production
p. Fish Processing
q. Fish Capture

5.2. Nature of the Field of Study

The BTVTEd program is an undergraduate teacher education program that equips learners with adequate and relevant competencies in teaching specific area in Industrial Arts or Home Economics or ICT or Agri-Fishery Arts – the four areas of technical and vocational track in the K to 12 Curriculum.

5.3. Program Goals

The BTVTEd program aims to develop highly competent and motivated teachers in technical and vocational education in their area of specialization.

The technical and vocational teacher education curriculum shall impart a body of knowledge, skills, attitudes, values and experiences that will provide prospective Grade 9-10 TLE Teachers, Senior High School teachers for the Tech-Voc Livelihood track, TVET Trainers/Instructors, and faculty members in higher education institutions with the necessary competencies essential for effective teaching. Graduates of BTVTEd are considered to have satisfied the TESDA requirement for Trainers' Methodology.

5.3.1 The specified body of knowledge, skills, attitudes, values and experiences shall include the following:

A. A general education component, consistent with CMO No. 20, series of 2013.

B. A professional education component to include courses under three broad categories: 1) theory and concept courses, 2) pedagogical content knowledge, and 3) experiential learning courses.

The theory and concept courses provide the broad frameworks within which students can understand, rationalize, and reflect on the various methods, strategies, processes, issues and other matters related to the teaching profession.

C. The pedagogical content knowledge courses aim to develop in students a wide range of skills to facilitate and evaluate learning among diverse types of students in a variety of learning environments. ICT-integration in teaching is an essential part of the methods and strategies courses to equip the teacher with competencies on the use of technology in teaching-learning.

D. The specialized knowledge and skills are based on the Philippine TVET Trainers' Qualification Framework (PTTQF). PTTQF ensures consistent delivery of quality training services across the country. It aims to qualify and certify prospective Grades 9-10 TLE, TVET and Senior High School teachers for the Tech-Voc Livelihood track to ensure their competence in trade qualifications, and training and assessment methodologies.

E. Experiential learning courses are intended to provide students with practical learning experiences in which they can observe , verify, reflect on and actually experience different components of the teaching –learning processes in actual school setting.

F. A specialization component includes industry exposure to equip the pre-service teacher with in-depth knowledge of the content and specified skills in the major field.

5.4. Specific Professions/Careers/Occupations for graduates

After completion of all academic requirements of the program, graduates of the **BTVTEd** should be able to practice the teaching profession in the field of specialization, serve as TVET trainers and assessors, or proceed to practice careers in various sectors of industry as entrepreneurs or as employees.

5.5. Allied Fields

Technical-Vocational Teacher Education is an allied discipline which draws from many of the basic disciplines in the social sciences, science and mathematics, engineering and technology, humanities and other related fields.

Section 6 Program Outcomes

The minimum standards for the **BTVTEd** program are expressed in the following minimum set of learning outcomes:

6.1. Common to all programs in all types of schools
The BTVTEd graduates have the ability to:

a. articulate and discuss the latest developments in the specific field of practice(PQF level 6 descriptor)
b. effectively communicate orally and in writing using both English and Filipino
c. work effectively and independently in multi-disciplinary and multi-cultural teams(PQF level 6 descriptor)
d. act in recognition of professional, social, and ethical responsibility
e. preserve and promote "*Filipino historical and cultural heritage*" (based on RA 7722)

ANNEX C
DESCRIPTION OF SPECIALIZATION COURSES

Area: Industrial Arts

Course Title	BTVTEd Major in Automotive Technology
Course Credits	36 units
Course Description	The Automotive Technology program is designed to prepare the student to perform a wide range of diagnostics, repairs, and preventative maintenance on automobiles and light vehicles. Students have the opportunity to learn in an industry certified facility. Students will have extensive hands-on training in engine overhaul, manual and automatic drive train, front end alignment, brake service and repair, fuel systems, ignition systems, and air conditioning. In addition, the program provides training in electrical and electronic control systems, engine performance diagnosis, and on-board computerized engine control systems diagnosis.
Contact Hours	

Course Title:	BTVTEd Major in Electronics Technology
Course Credits	36 units
Course Description	This course is designed to develop & enhance the knowledge, skills, & attitudes of an Electronic Products Technician, in accordance with industry standards. It covers the basic and common competencies in addition to the core competencies such as Computer System Servicing, assembling electronic products, fabricating PCB modules and installing and servicing consumer and industrial electronic products and systems. It includes Instrumentation and Control Servicing, Mechatronics Servicing and Broad Band Servicing.
Contact Hours	

Course Title:	BTVTEd Major in Electrical Technology
Course Credits	36 units
Course Description	This course is designed to equip individuals with operational skills in Electrical Installation & Maintenance particularly in installing and maintaining electrical wiring, lighting and related equipment/systems in residential houses and buildings. This course also covers the proper operation and maintenance of direct-current systems, alternating current and controls, electrical measuring instruments, electrical safety, short-circuits analysis and troubleshooting. The course covers lighting and alarm system with emphasis on renewable energy and conservation such as Photovoltaic and Solar Panel Technology.
Contact Hours	

Course Title:	BTVTEd Major in Mechanical Technology
Course Credits	36 units
Course Description	This is designed to develop knowledge, desirable attitudes and skills of Machinist. It covers the competencies required to select and use hand and power tools to perform complex bench operations, skills to set up and turn workplace to drawing specifications, such as cutting tapers by offsetting tailstock or using taper attachment; machining components using collets chuck and follower rest; cutting internal Vee and internal and external acme threads; centering work piece, drilling, reaming, boring, knurling and tapping. It also covers the skills required to set up and mill workpiece to drawing specifications such as indexing, milling splines, equally spaced grooves, 45 degrees, serrations in cylindrical workpiece, spur gear and rack, ratchets, converging faces, large radial slots, internal radii and plain bevel gear. It also covers the skills required to set up and grind workpiece to drawing specifications such as grinding tapers internal and external, internal radii and recess, remove warp and polish components.
Contact Hours	

Course Title:	BTVTEd Major in Civil and Construction Technology
Course Credits	36 units
Course Description	This prepares students to an entry level as building maintenance and repair technician for employment by residential/commercial complexes, residential refurbishment and infrastructure requirements. Instruction and lab experience includes: blueprint reading, basic plumbing, laying out electrical system, masonry job on footings, columns, beams, slabs and steel works, glass and tile setting, flooring, drywall, finished carpentry, roofing repairs and cabinet making. The course also includes Septic Tank, Sewerage System Installation and management.
Contact Hours	

Course Title:	BTVTEd Major in Welding and Fabrication Technology
Course Credits	36 units
Course Description	This course is designed to enhance the knowledge, skills and attitudes of Welder in accordance with industry standards. It covers competencies such as Setting-up Welding Equipment, Preparing Weld Materials, Fitting up Weld Materials, Welding different types of metals using SMAW, GMAW, GTAW, FCAW and SAW. Welding technology usually works from blueprints or drawings. Welders permanently join metal parts of ships, automobiles, spacecraft, buildings, bridges, and other structures. They apply heat to the pieces to be joined, melting and fusing them to form a permanent bond. Most welders work for manufactures of durable goods such as

	boilers, construction equipment, motor vehicles, machinery, ships, appliances, and other metal products. Welders construct bridges, large buildings, pipelines, tunnels, and shipyards.
Contact Hours	

Course Title:	**BTVTEd Major in Heating, Ventilating and Air Conditioning Technology**
Course Credits	**36 units**
Course Description	The Heating, Ventilating Air Conditioning and Technology program is designed to train individuals in the field of air conditioning, heating and refrigeration equipment, maintenance and repair and in the use of approved recovery equipment. Individuals satisfying course and competencies have career opportunities in a variety of job classifications such as service and repair of residential and commercial air conditioning and refrigeration systems. This course also covers Mobile and Commercial Air conditioning installation, repair and maintenance.
Contact Hours	

Area: Home Economics

Course Title	**BTVTEd major in Food and Service Management**
Course Credits	36 units
Course Description	This course is designed to enhance the knowledge, skills and work attitude of food and service managers in accordance to the needs of industry. It covers competencies on food selection and preparation, meal management, basic and advanced baking, food processing, packaging and labelling, International cuisine, quantity cookery, cafeteria and catering management, and bartending and bar management.
Contact Hours	

Course Title	**BTVTEd Major in Fashion and Garments and Technology**
Course Credits	**36 units**
Course Description	This course is designed to enhance the knowledge, skills and attitudes of Fashion and Garments Designer in accordance with industry standards. It covers competencies on creating garment design, calculating and procuring garment materials, coordinating garment prototype preparation, supervising garment production, evaluating finished product, packaging of finished garment and promoting fashion products and services. It includes designing activities allows students to specialize in fashion pre-production processes, including pattern cutting, fittings, grading and sizing, production planning, costing, testing and technical packs.
Contact Hours	

Course Title	BTVTEd Major Hotel and Restaurant Services
Course Credits	36 units
Course Description	This course covers different competencies in Hotel and Restaurant Services and Management. This is designed for students who wish to obtain career opportunities in the hospitality industry. It includes actual Hotel and Restaurant industry exposure and observations where application of technology in learning will constitute the major requirement of the course. Food and Beverage services along with Bread and Pastry Production, quantity Cookery and Bartending as well as Housekeeping form part of the course. Performing Hotel Management Services like Front Office Services, Event Management Services, Tour Guiding and Housekeeping formed the bigger practice in the course. Online and offline researches and field observation on the effectiveness of any supporting material in teaching will be used to enhance and facilitate the delivery of instruction in learning how to teach the process involved in Hotel and Restaurant Services.
Contact Hours	

Course Title	BTVTEd Major in Beauty Care and Wellness
Course Credits	36 units
Course Description	This course is designed to enhance the knowledge, skills and attitudes of beauticians in accordance with industry standards. It covers competencies in pre and post beauty care and wellness services. The course consists of competencies that a person must achieve to perform in enhancing of someone's personal beauty, such as, performing manicure and pedicure, performing hand spa foot spa, body scrubs and massages. It also covers cosmetics applications with additional skills in hair culture.
Contact Hours	

Area: Information and Communication Technology

Course Title	BTVEd Major in Animation
Course Credits	36 units
Course Description	This is an introductory and specialization course which leads to an Animation National Certificate Level II (NC II). It covers Personal Entrepreneurial Competencies (PECs); Environment and Market; five (5) Common Competencies; and one (1) Core Competency that a high school student ought to possess to produce clean-up and in-between drawings. The preliminaries of this specialization course include the following: 1) discussion on the relevance of the course; 2) explanation of key concepts of common competencies; 3) explanation of core competencies relative to the course; and 4) exploration of career opportunities.
Contact Hours	

Course Title	BTVTEd Major in Computer Hardware Servicing
Course Credits	36 units
Course Description	This covers two core competencies: 1) configuring computer systems and services and 2) maintaining computer systems and services. This is designed to enhance the knowledge, desirable values and skills of computer service technicians in accordance with the industry standards. It covers the competencies required in installing, maintaining, configuring, and diagnosing computer systems and networks. It also includes the competencies required to participate in workplace communication, work in team environment, practice career professionalism, and practice occupational health and safety procedures.
Contact Hours	

Area: Agri-Fishery Arts

Course Title	BTVEd Major in Animal Production
Course Credits	36 units
Course Description	This course is designed to enhance the knowledge, skills and desirable attitudes in animal production. It consists of competencies that a person must achieve to raise poultry, raise small ruminants, raise swine and raise large ruminants. It also includes the competencies required to participate in workplace communication, work in team environment, practice career professionalism, and practice occupational health and safety procedures.
Contact Hours	

Course Title:	BTVEd Major in Aquaculture
Course Credits	36 units
Course Description	This course is meant to train the student to assist in aquaculture operations. This course is focused on skills in applying safety measures in farm operation, in the use of farm tools and equipment, in the conduct of pre-operation aquaculture activities; prepare and maintain aquaculture facilities, operate fish nursery and perform fish or shrimp grow-out operations.
Contact Hours	

Course Title:	BTVEd Major in Horticulture
Course Credits	36 units
Course Description	This course is designed to enhance the knowledge, skills and desirable attitudes in horticulture. It covers pre-horticultural farm operations, production of vegetable and fruit bearing crops, postharvest operations of major tropical fruits as well as major lowland and semi-temperate vegetable crops.
Contact Hours	

Course Title	BTVTEd Major in Agricultural Crops Production
Course Credits	36 units
Course Description	This course consists of competencies that a person must achieve in the production of ornamental and agronomic plant such as vegetables, fruits and nuts as well as root crops. They would be undertaking basic crop husbandry and work orientation skills. The course introduced some agricultural innovations such as hydroponics and soil and waste management system.
Contact Hours	

Course Title	BTVTEd Major in Fish Processing
Course Credits	36 units
Course Description	This course is designed for students to develop and enhance their knowledge, skills, and attitudes in Fish-Products Packaging in accordance with industry standards. It covers core and specialized competencies that a learner must achieve to pack fish-products by vacuum packing, poly bagging, bottling and canning. It also covers lessons on Personal Entrepreneurial Competencies (PECS) and Environmental and Market that maximize their skills into a marketable venture.
Contact Hours	

Course Title	BTVTEd Major in Fish Capture
Course Credits	36 units
Course Description	This course is designed to enhance the knowledge, desirable skills and attitudes in fish capture in accordance with industry standards. It covers competencies in applying deckhand skills aboard a fishing vessel, loading and unloading goods/cargo, and assembling and repairing damaged netting. It also includes the competencies required to participate in workplace communication, work in team environment, practice career professionalism, and practice occupational health and safety procedures.
Contact Hours	