

## **Status of Bachelor of Science in Mechanical Technology Based on National and International Qualifications Standards**

**By**

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### **Abstract**

This study assessed the Bachelor of Science in Mechanical Technology (BSMT) curriculum at Eastern Visayas State University (EVSU), Tacloban City, using worldwide standards to improve the program. It examined the Bachelor of Science in Mechanical Technology (BSMT) curriculum of Eastern Visayas State University (EVSU), Tacloban City, based on Washington Accord through the Philippine Technological Council (PTC), ASEAN Qualifications Reference Framework (AQRF), and AACUP Level IV requirements. It examined standards' similarities and discrepancies. The study's findings were used to improve Eastern Visayas State University's Bachelor of Science in Mechanical Engineering pre-engineering program (EVSU). The Bachelor of Mechanical Technology (BSMT) of Eastern Visayas State University (EVSU), Tacloban City was rated Very Good in terms of: (1) Vision, Mission, Goals, and Objectives with a factor average of 3.76 and a standard deviation of 0.48, indicating that the provisions or conditions are implemented and functioning well; (2) Faculty with a factor average of 3.64 and a standard deviation of 0.48, indicating that the provisions are implemented and functioning well. (7) Library was rated Good with a factor average of 3.22 and a standard deviation of 0.80, indicating that the provisions or conditions are moderately implemented and functioning satisfactorily; (8) Physical Plant and Facilities was rated Very Good with a factor average of 3.74 and a standard deviation of 1.16, indicating that the provisions or conditions are implemented and functioning well; and (9) Laboratories was rated Very Good with a factor average of 3.68 Rated Very Excellent with a factor average of 3.82 and a standard deviation of 0.59, meaning the provisions or conditions are implemented and working properly. The Washington Accord, AQRF, and AACUP Level IV share most standards, although the Washington Accord and AQRF did not highlight cultural indicators. Thus, the Eastern Visayas State University (EVSU) Bachelor of Mechanical Technology (BSMT) met national and international standards, specifically the Washington Accord, through the Philippine Technical Council (PTC), the ASEAN Qualifications Reference Network (AQRF), the Accrediting Agency for Chartered Colleges and Universities in the Philippines (AACUP), and the Commission on Higher Education (CHED).

**Keywords:** status, national, international, qualifications, standards.

### **Introduction**

Quality control should be integral to its operations and services if an institution claims or aspires to be an effective service provider. The institution should take initiative and establish a sound monitoring system to make sure the process works and produces outcomes. Accreditation is the affirmation that an institution provides a quality of education that the community has a right to expect and which the education world endorses. It is also the process in which certification of competency, authority, or credibility is presented. The accreditation process ensures that their certification practices are acceptable, typically meaning that they are

competent to test and certify third parties, behave ethically, and employ suitable quality assurance. Higher education accreditation is a type of quality assurance process under which services and operations of post-secondary educational institutions or programs are evaluated by an external body to determine if applicable standards are met. If standards are met, accredited status is granted by the agency.

Accreditation, the catalyst and gatekeeper of quality assurance in the world, is the prime service of the AsiaPacific Quality Network (APQN), Shanghai; the International Network of Quality Assurance Agencies in Higher Education (INQAAHE), Hague, Netherlands; the Malaysian Qualifications Agency (MQA), the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT); the Washington Accord (WA), through its conduit, the Philippine Technological Council as it is in the Accrediting Agency of Chartered Colleges and Universities in the Philippines (AACCUP), whose alliance, affiliation and collaboration with the aforementioned quality assurance agencies pole-vaulted its status as a front-runner accreditation agency of SUCs in the country. Likewise, SUCs have established partnership with AACCUP to contend with the present-day imperatives and realities such as heightening global competition, volatile turn of events, explosion of knowledge, shifting sociopolitical priorities, and economic and demographic changes (Gemora, 2015).

In the Philippines, to compete successfully in today's education, Higher Education Institutions (HEIs), public and private, have to adhere to quality standards and deliver quality services to their clientele and stakeholders. The role of AACCUP is to validate, assess and certify if indeed there is quality-assured education in state HEIs, to respond to society's demand for the institution's accountability in their clientele's life after graduation. Aside from these, in response to internationalization, AACCUP has geared itself into more stringent process of evaluation in higher levels of accreditation, more importantly on Levels III and IV, showing best practices and standards comparable to foreign institutions of learning. Similarly, external evaluation by a credible agency is tantamount to conducting an accounting of the institution's contribution to the improvement of the quality of human life in its service areas, thus ultimately contributing to national development. Through the years, state-funded HEIs have invested their trust and confidence on AACCUP for external peer review and assessment of their programs and institutions, as they have been investing too much time, energy, funds and human capital in the pursuit of quality and excellence in their operations and service delivery. As of this current, almost all SUCs have embraced accreditation as vanguard of quality. To most HEIs, it has always been a rigorous undertaking that takes a lot of people's time and effort, the richness of imagination and the power of the pen in all the stages of preparation.

In the case of the Eastern Visayas State University (EVSU), Tacloban City, since its inception, it is committed to achieve the highest level of performance as measured against regional, national, and global standards. Hence, this study seeks to review existing accreditation process in the University especially on the Bachelor of Science in Mechanical Technology (BSMT) curriculum. The curriculum developers find it necessary to revisit the said program because the courses included are mostly within the Bachelor of Science in Mechanical Engineering (BSME) curriculum. In this case, the students may be able to choose the appropriate pre-degree program; however, the minimum requirements to complete the Bachelor of Science in Mechanical Engineering program may be of great significance especially that they will not be spending another five (5) years, but instead, finish the said engineering program in one (1) year only.

The Technological University of the Philippines has already adopted the curriculum which provides an opportunity for BSMT students to continue one (1) more year to become a graduate of BSME and be ready to take the board examination. There are no studies conducted in this regard; hence, this study is conducted.

This study is anchored on international qualifications standards such as the Washington Accord, the Philippines Technological Council (PTC), the ASEAN Qualifications Reference Network (AQRN), the Accrediting Agency for Chartered Colleges and Universities (AACUP), and the CHED Memorandum Orders (CMO) No. 46, s. 2012 (Policy Standard to Enhance Quality Assurance (QA) in Philippine Higher Education through an Outcomes- Based and Typology-Based QA) and CMO No. 55 s.2016 (Policy Framework and Strategies on the Internationalization of Philippine Higher Education). The Washington Accord is a multi-lateral agreement among bodies responsible for the accreditation or recognition of tertiary-level engineering degree programs in each of the countries or territories where the bodies operate. PTC is the sole organization recognized by the Commission on Higher Education (CHED) and the body of engineering professionals in the country to be the applicant-signatory and representative of the Philippine jurisdiction to the Washington Accord. PTC has accredited a number of engineering programs in various institutions of tertiary engineering education in the country.

ASEAN's Charter aims to create a single market and production base with effective facilitation for trade and investment, facilitate movement of business persons, professionals, talents and labor, and develop human resources. In 2007, the ASEAN Member States adopted the AEC Blueprint, which called for cooperation in recognition of professional qualifications. The ASEAN region is characterized by varying development and levels of national qualifications framework (NQF). The AQRN aims to accommodate different types of NQFs that are at different stages of development.

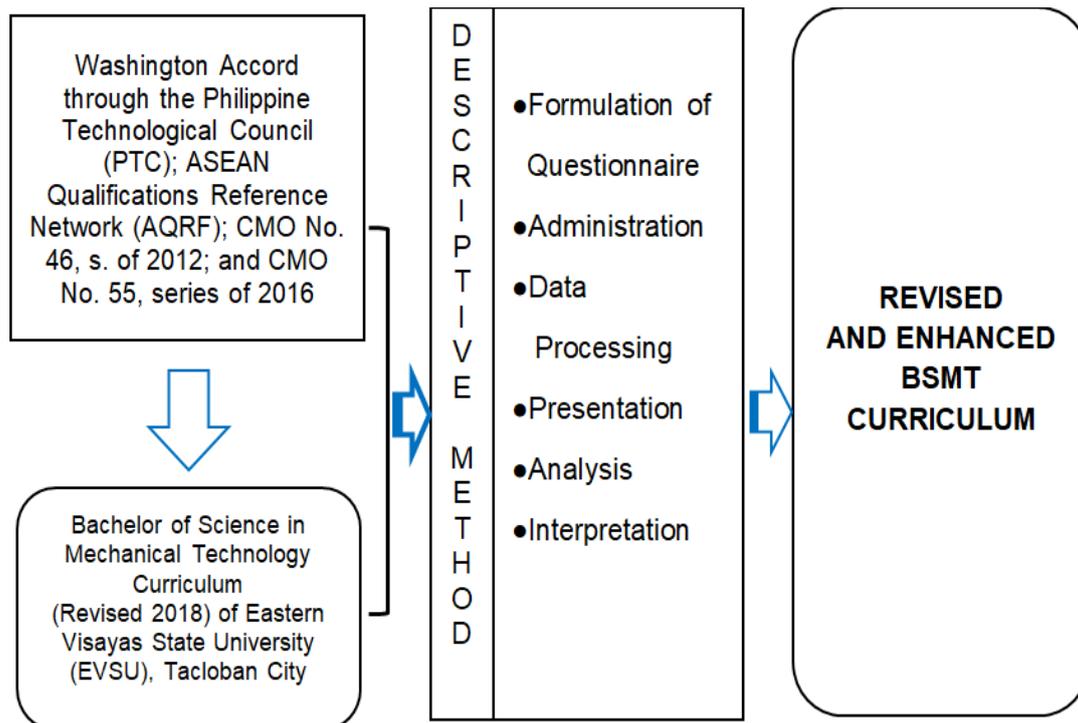
### ***1.1 Process Research Flow***

Figure 1 below illustrates the research paradigm which includes the determining of the existing curriculum status and the preparedness of the Bachelor of Science in Mechanical Technology (BSMT) program and takers to pursue Bachelor of Science in Mechanical Engineering. This study includes three stages, namely: the input, the process, and the output.

The input includes the existing curriculum of the Bachelor of Science in Mechanical Technology with specializations in Automotive Technology, Welding and Fabrication Technology, Metallurgy Technology, and Machine Shop Technology in relation to the international qualifications standards set by the Washington Accord through the Philippine Technological Council (PTC), the ASEAN Qualifications Reference Network (AQRN), and CHED Memorandum Orders No. 46 series of 2012 and No. 55 series of 2016, respectively.

The process covers the research procedures involved in the study from the formulation of the questionnaire to the tabulation, presentation, interpretation, and analysis of data.

The output presents the enhanced Bachelor of Science in Mechanical Technology curriculum as a pre-engineering program for the Bachelor of Science in Mechanical Engineering.



**Figure 1. Research Flow Chart**

### **1.2 Objectives of the study**

This study intended to evaluate the existing status of the Bachelor of Science in Mechanical Technology (BSMT) Curriculum based on the international standards. Specifically, it sought to answer the following:

1. Determine the existing status of the Bachelor of Science in Mechanical Technology (BSMT) Curriculum based on the standards of:
  - 1.1 Washington Accord through the Philippine Technological Council (PTC);
  - 1.2 ASEAN Qualifications Reference Framework (AQRN); and
  - 1.3 AACUP Level IV?
2. Identify the commonalities and differences of the said standards?

## **Methodology**

It presents the research method used in this study which includes the research design, research environment, research respondents, research instrument, and the statistical treatment of data.

### **2.1 Research Design**

The descriptive survey strategy was used for this research study, and the AACUP's modified self-survey instrument served as the primary data collection instrument for collecting the required information and data. The aforementioned methodology was chosen to conduct the study since its main objective was to assess the currently available curriculum.

### **2.2 Research Environment**

This study was conducted in Eastern Visayas State University (EVSU), which is located in Tacloban City, Leyte, Philippines. EVSU is a public university in the Philippines and the oldest higher educational institution in the Eastern Visayas region. It is mandated to provide advanced education, higher technological, professional instruction and training in trade,

fishery, agriculture, forestry, science, education, commerce, architecture, engineering, and related courses. It is also mandated to undertake research and extension services, and provide progressive leadership in its area of specialization. Its main campus is in Tacloban City.

The Eastern Visayas State University had its humble beginnings in 1907, as a part of the Provincial school. It became a separate educational entity in 1915 and was renamed as the Leyte Trade School funded by the Provincial government. In 1953, after thirty-eight years, it was renamed as the National Provincial Trade School by virtue of R.A. 406 funded jointly by the National and Provincial Government to cover a wider curricular area. In 1961, the Congress of the Philippines passed Republic Act 1516 converting it into the Leyte Regional Arts and Trades and authorizing it to become a training institution, for vocational and industrial education in Eastern Visayas. Finally, Republic Act 4572 enacted by the congress of the Philippines which took effect in the school year 1965-1966 further converting the school into a chartered college. It was renamed the Leyte Institute of Technology, an institute of higher learning committed to the service of a larger academic area of responsibility.

EVSU addresses its academic endeavors towards the development of the socio-economic condition of region VIII by emphasizing the development of human resources and necessary input to production and growth. It plays a major role in providing the human resources for industrial agri-business enterprises as well as for the small, medium, and large-scale industries, which are the components for regional development. It envisions to be a Leading State University in Technological and Professional Education, and its mission is to Develop a Strong Technologically and Professionally Competent Productive Human Resource Imbued with Positive Values Needed to Propel Sustainable Development. The university's core values include: Excellence, Value-Laden, Service-Driven, and Unity in Diver.

### **2.3 Research Respondents**

The respondents of the study were the school administration, faculty, students, alumni, and representatives from the industries.

**Table 1.** *Distribution of Respondents*

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Administration	3	02.58%
Faculty	5	04.31%
Students	83	71.55%
Alumni	20	17.25%
Industry Partners	5	04.31%
<b>Total</b>	<b>116</b>	<b>100.00%</b>

### **2.4 Research Instrument**

The instrument used was standardized self-survey instrument of the Accrediting Agency for Chartered Colleges and Universities (AACCUP). Scales from 1 to 5 were utilized based on the verbal descriptions provided.

### **2.5 Statistical Treatment of the Data**

The data collected were analyzed using descriptive statistics of means. The data gathered based on the criteria and guidelines of the AACCUP Manual for Accreditation (2015) was interpreted using the parameter scales and verbal descriptions to measure the level of preparedness of EVSU.

**Table 2.** *Parameter Scale and Verbal Descriptions*

Scale	Range	Category	Verbal Description
5	4.20 – 5.00	Excellent (E)	The provisions or conditions are effectively implemented and are functioning excellently.
4	3.40 – 4.19	Very Good (VG)	The provisions or conditions are implemented and are functioning well.
3	2.60 – 3.39	Good (G)	The provisions or conditions are moderately implemented and are functioning satisfactorily.
2	1.80 – 2.59	Fair (F)	The provisions or conditions are implemented to a limited extent and are functioning minimally.
1	1.00 – 1.79	Poor	The provisions or conditions are not implemented and are not functioning.

## Findings

Table 1 presents the summary of the ten areas evaluated. The detailed results are discussed right hereafter.

**Table 3.** *Summary Table of the Ten Areas for Evaluation*

Table No.	Title	Factor Average	Standard Deviation	Interpretation
2	Vision, Mission, Goals, and Objectives	3.76	0.48	VG
3	Faculty	3.64	0.48	VG
4	Curriculum and Instruction	3.84	0.46	VG
5	Student Support/Services	3.48	0.46	VG
6	Research	3.05	1.08	G
7	Extension and Community Involvement	3.34	1.05	G
8	Library	3.22	0.80	G
9	Physical Plant and Facilities	3.74	1.16	VG
10	Laboratories	3.68	0.54	VG
11	Administration	3.82	0.59	VG
	<b>Grand Mean</b>	<b>3.56</b>	<b>0.71</b>	<b>VG</b>

Table 1 shows the summary table of the 10 areas evaluated. It reveals that all areas were rated Very Good which means that majority of the provisions or conditions are implemented and functioning well.

In terms of vision, mission, goals, and objectives, the Factor Average is 3.76 with a standard deviation of 0.48 and interpreted as VERY GOOD which means that the provisions or conditions are implemented and are functioning well. Specifically, indicator B.1 under Subcategory on Dissemination and Acceptability that “The Vision and Mission statements Goals and Objectives are printed in the bulletin boards, catalogs/manuals and other forms of communication media and are readily available” got the highest rating of 4.11 with a standard deviation of

0.62 and interpreted as VERY GOOD while the indicator on “There is staff participation in the formulation, review, and/or revision of the VMGO” got the lowest rating of 3.51 with a standard deviation of 0.49 but still interpreted as VERY GOOD. This implies

that EVSU has realized its VMGO through its curricular offerings and the results were evident based on the skills shown and the knowledge learned from the students especially those specializing Metallurgy, Automotive Technology, Machine Shop Technology, and Welding Technology. However, in the review and revision of the VMGO, all sectors have to be represented, so the VMGO will be owned by everyone.

In terms of Faculty, it reveals that the factor average is 3.64 with a standard deviation of 0.48 and interpreted as VERY GOOD which means that the provisions or conditions are implemented and are functioning well. Indicator under subcategory on Faculty Adequacy and Loading on “The faculty members are assigned to teach their major/minor fields of specialization” got the highest rating of 3.85 with a standard deviation of 0.58 while the indicator on “Other qualifications such as the following are considered....2.4 technical skills and competence” got the lowest rating of 2.81 with a standard deviation of 0.48 and interpreted as GOOD which means that the provisions or conditions are moderately implemented and are functioning satisfactorily.

The results imply that though the faculty assigned are specialized, they still need more skills to enhance especially on the technical aspects considering that the tools and equipment utilized in the industry are updated to the new trends of technology. Hence, teacher evaluation has to regularly done, so problems or concerns will be addressed accordingly and immediately.

Teachers are one of the most important contributing factors towards the process of effective learning. They are the primary source of instructions and information and data to the students. In any learning system, syllabi and books are considered to be very vital for its effectiveness. However, without a competent teacher, there would not be anyone to guide and give direction to the students on how to comprehend these syllabi and books. So, it is essential for the institution to select and retain the best teachers for better output.

With regular teacher evaluations improved appraisal process is initiated and with incremental promotions and incentives the efforts and performance of good teachers is recognized. As a consequence, these appreciated teachers are motivated to a higher level and hence perform even better in the times to come (Neal, 2016).

In terms of Curriculum and Instruction, it reveals that the factor average is 3.84 with a standard deviation of 0.46 and interpreted as VERY GOOD which means that the provisions or conditions are implemented and are functioning well. The indicator under Curriculum and Program of Studies on “The curriculum reflects national and regional goals and institutional vision and mission” got the highest rating of 4.22 with a standard deviation of 0.57 and interpreted as VERY GOOD. However, the indicator under Other Teaching Methods and Techniques on “Instruction is conducted with the following:....(11.5.1 Attendance/participation of faculty in in-service training” got the lowest rating of 3.14 with a standard deviation of 0.52 and interpreted as GOOD which means that the provisions or conditions are moderately implemented and are functioning satisfactorily.

The results imply that curriculum are well-crafted and designed; however, in terms of faculty development training to enhance the knowledge and skills, some were not attending or they were not focused. They might be physically present, but their interests were not on the training.

Petrina (2007) emphasized that curriculum and instruction are the meat of the educational process. Real change in education comes with changes in the content that teachers

teach and students learn, and in the instructional methods that teachers use. Both curriculum and instruction in turn are shaped by expectations about the kinds of educational outcomes that students should manifest by the time they graduate from high school. Standards-based reform has been built around a specific set of assumptions about curriculum and instruction, embodied in the content and performance standards that are central to the reforms. Special education, for its part, has been built around a set of assumptions about valued post-school outcomes, curricula, and instruction that reflect the diversity of students with disabilities and their educational needs. Whether students with disabilities will participate successfully in standards-based reform will depend largely on the degree of alignment between these two sets of assumptions. Considering that it also carries its cost, most universities prefer to conduct in-service training.

In terms of student support and services of EVSU, the results reveal that the factor average is 3.48 with a standard deviation of 0.46 and interpreted as VERY GOOD which means that the provisions and conditions are implemented and are functioning well. Specifically, indicators under Scholarship/Grants on “The College provide privileges, such as...(2.1) free or discounted school fees...” got the highest rating of 3.74 with a standard deviation of 0.45 and interpreted as VERY GOOD. However, indicators under Admission and Retention on “Student admission records as enumerated below are available and filed (4.1) enrolment trends...” got the lowest rating of 3.04 with a standard deviation of 0.09 and on Housing Services “The school coordinates with private boarding houses’ operators and owners for students’ housing needs to safeguard the student boarders’ welfare” got the same lowest rating of 3.04 with a standard deviation of 0.97, and both were interpreted as GOOD which means that the provisions or conditions are moderately implemented and are functioning satisfactorily.

The results imply that in terms of enrolment trends, the school is much preferred especially in terms of the programs offered; however, there has to be a support for students who come from far places, so they will be secured while they are staying in the city or near the university.

Student Support Service is one of the key areas of which the success of any University depends (Kumar & Fozdar 2009). A study on the use and perceived effectiveness of student support services was conducted by Burk and Bender (2005). The purpose of this study was to determine the severity of problems common to the first year and to assess the use and perceived effectiveness of formal and informal peer and professional support programs in addressing those problems. Results indicated that the problems perceived as most serious by students in this sample were of an emotional nature relating to academic performance. Findings showed that students relied heavily on themselves and on informal advice from peers to handle problems and that they perceived these resources to be very effective. Results also provide insight into the use of peers and "self" to resolve problems common to the first year of dental education.

In terms of Research, it got a factor average is 3.05 with a standard deviation of 1.08 and interpreted as GOOD which means that the provisions and conditions are moderately implemented and are functioning satisfactorily. Indicators on “The Institution’s research agenda is in consonance with institutional, regional, and national priorities especially those government agencies such as DOST, CHED, National Higher Education Research Agenda, NEDA, Dept. of Agriculture, NRCP; The following stakeholders participate in the formulation of research agenda identified as institutional thrusts and priorities: 2.1 administrators;

2.2 faculty; 2.3 staff; and 2.4 government agency representatives (DOST, DA- BAR, CHED, NEDA, NRCP)” got the highest rating of 3.29 with a standard deviation of 1.34 and interpreted as GOOD. However, indicators on “The Institution encourages/supports the faculty in any or all of the following activities: (1) Instructional Materials development; (2) Paper presentation, classroom lectures, and other similar activities; (3) Editorship/writing in academic, scientific and professional journal; and (4) Thesis/Dissertation Advising” got the lowest rating of 2.82 with a standard deviation of 0.84 and interpreted as GOOD.

The results imply that there is enough support for research from different funding institutions and agencies, but the faculty and students are not motivated to do research considering the risks it involved before one can complete or publish a paper.

British Educational Research Association (BERA) has recently published a report titled *Research and the Teaching Profession* which reflects some of my own personal beliefs – teachers need to be encouraged to and allowed opportunities for proper academic research into education for the enhancement of their practice. In short, it identifies main ways in which research can contribute to teacher education: by informing the content and structure of teacher education programs by research-based knowledge, teaches teachers how to discerning consumers of research and equips teachers to conduct their own research and investigate impact of positive and negative effects of practices in education. The findings are: research-rich environments are indeed best high performing education systems (internationally); if teachers want to be effective, teachers and teacher educators need to engage with research – keep up to date with recent academic developments in their subject and in education overall; and teachers and teacher educators need the capacity, motivation, confidence and opportunities to engage with and in research; and research cannot just stop after the initial teacher education – but should be sustained throughout their careers so that enquiry is embedded in the professional lives of teachers and schools and become normal way of teaching and learning (Kamil, 2014).

In terms of the school’s extension and community involvement, it has a factor average of 3.34 with a standard deviation of 1.05 and interpreted as GOOD which means that the provisions or conditions are moderately implemented and are functioning satisfactorily. Indicators on “The extension activities complement the curricular offerings of the academic unit under review; the extension activities are documented; accomplishment and terminal reports for reference purposes; accomplishment reports are filed for reference purposes; and there is community participation and involvement in extension activities along with (1.1) Planning...” got the highest rating of 3.43 with a standard deviation of 1.08 and interpreted as GOOD, but the indicator on “Sourcing of funds, materials, and other services inputs” got the lowest rating of 3.25 with a standard deviation of 0.96 and interpreted as GOOD.

The results imply that the university has planned its community extension services especially in complementing these activities with the curricular offerings including the accomplishment of reports; however, there is a problem on the sources of funds to provide those services to the community.

Service learning is a teaching/learning method connecting meaningful community service with academic learning, personal growth, and civic responsibility. As a method of educational and informational delivery, the service-learning model emphasizes that clients and students learn and develop through active participation in thoughtfully organized experiences that meet actual community needs and that are coordinated in on-going collaboration with the school or institution and the community. It has been proven and argued that service-learning programs at colleges and universities can and do strengthen relationships between higher

education institutions and the communities served. When students and community members are involved as recipients and/or participants in traditional research-based courses, formal or informal, relevant information can be gleaned and learned in the process. When projects and course information result in service experiences, the recipients are forced to use the information to make changes, "to make a difference" and to do something with what they have learned (Journal of Extension, 2018).

In terms of the library, it has a factor average of 3.22 with a standard deviation of 0.80 and interpreted as GOOD which means that the provisions or conditions are moderately implemented and are functioning satisfactorily. Specifically, indicators on "The library collection and services support the mission/vision, goals and objectives of the institution, college, and program, respectively" got the highest rating of 3.45 with a standard deviation of 0.89. However, the indicator on "Other sources of financial assistance are sought" got the lowest rating of 3.02 with a standard deviation of 3.02 or 0.67 and interpreted as GOOD.

Results imply that the university was able to achieve its VMGO through its library collection, but in terms of financial assistance from different funding institutions, it needs to strengthen its linkages especially with the institutions in the country and abroad.

Libraries dole out a critical role in the Education industry. It is considered as the brain of any education institute, be it small or large schools, colleges or universities. Today education institutes understand the importance of the library with the increase in education standards. With the development of digital content, it becomes more important to manage the catalog of educational information with scalable and reliable Library Management System that will support the general requirement of the library. Easy to use Campus library management systems are now available for stress-free management of campus libraries of any size. A trustworthy web-based library management system provides a complete resolution for students, librarians, and faculty members. Library Management system helps in maintaining data of books issued to learners and books available in the library. This helps librarians to spot any particular book at any given time in the library. This kind of Library management system can be easily customized as per individual requirement. It is easy to use interface and immediate reporting make things easier for the school library staff (Academia, 2015).

In terms of the Physical Plant and facilities, it has a factor average of 3.74 with a standard deviation of 1.16 and interpreted as VERY GOOD which means that the provisions or conditions are implemented and are functioning well. Indicators on "Water facilities are functioning and are well distributed in all buildings" got the highest rating of 4.30 with a standard deviation of 1.17 and interpreted as VERY GOOD while the indicator on "There is a system/mechanism to ensure all of the following: (5.1) traffic safety in and outside the campus" got the lowest rating of 3.28 with a standard deviation of 1.44 and interpreted as GOOD which means that the provisions or conditions are moderately implemented and are functioning satisfactorily.

Results imply that the university has provided the best water facilities considering that it equally supplies to the different buildings, but there is a problem on safety and security both inside and outside the campus which must be given immediate attention.

The school facility is much more than a passive container of the educational process: it is, rather, an integral component of the conditions of learning. The layout and design of a facility contributes to the place experience of students, educators, and community members. Depending on the quality of its design and management, the facility can contribute to a sense

of ownership, safety and security, personalization and control, privacy as well as sociality, and spaciousness or crowdedness. When planning, designing, or managing the school facility, these facets of place experience should, when possible, be taken into consideration (Crow, 2000).

In terms of Laboratories, it has a factor average of 3.68 and a standard deviation of 0.54 and interpreted as **VERY GOOD** which means that the provisions or conditions are implemented and are functioning satisfactorily. Indicator on “The following are properly maintained by trained/appropriate personnel/technicians: (81.) Natural science laboratory” got the highest rating of 3.76 with a standard deviation of 0.57 and interpreted as **VERY GOOD**. However, the indicator on “The equipment, instrument, and materials needed in the classroom are available” got the lowest rating of 3.60 with a standard deviation of 0.60 and interpreted as **VERY GOOD**.

Results reveal that the university was able to hire qualified technicians to maintain its laboratories, but it needs to acquire tools and equipment to be utilized inside the classroom. With the advancement of technology, it is needed that the materials should be the same with those used in the industry.

A laboratory is always considered as a relevant and essential part so far as the teaching of Science and Computer is concerned. Every school has laboratories where students can perform researches, experiments or even learn new things with the help of internet facility. This helps students to remember the studies in a better way by conducting their own experiments. It gives students first-hand experience and offers better opportunities for learning. A laboratory is not a contest whose object is to get the “right answer”, but the purpose is to learn how to gain knowledge, how to observe and to learn the meaning of what happens (Leblond, 2019).

In terms of Administration, it has a factor average of 3.82 with a standard deviation of 0.59 and interpreted as **VERY GOOD** which means that the provisions or conditions are implemented and are functioning well. Indicators on “There is a printed Bulletin of Information containing policies and guidelines on the following aspects of student life which are implemented by school officials concerned: 1.1 Admission and retention policies; 1.2 Registration requirements; 1.3 School Fees;

1.4 Academic Load; 1.5 Transfer; 1.6 residence, course work, scholastic and graduation requirements; 1.7 Examination and grading system; 1.8 Scholarship;

1.9 Shifting, adding, and dropping of course; and 1.10 Code of conduct and discipline” got the highest rating of 4.09 with a standard deviation of 0.54 and interpreted as **VERY GOOD**. However, the indicator on “The Dean, the faculty and the administration work together for the improvement of the College, particularly in: (5.1) setting standards and targets; planning of programs and other related activities” got the lowest rating of 3.33 with a standard deviation of 0.58 and interpreted as **GOOD** which means that the provisions or conditions are moderately implemented and are functioning satisfactorily.

Results imply that the school information are posted in a conspicuous place, but there is a problem on collaborative effort to work together to plan out programs and activities in the school.

## **Conclusion**

Based on the findings of the study, of the ten (10) areas evaluated, the provisions or conditions set on the areas on Vision, Mission, Goals, and Objectives, Faculty, Curriculum and

Instruction, Student Support Services, Physical Plant and Facilities, Laboratories, and Administration were fully implemented by Eastern Visayas State University (EVSU), Tacloban City based on the national and international qualifications standards; however, on the areas of Community Involvement, Research, and Library, the university was not able to fully implement the provisions or conditions set. Hence, the Bachelor of Mechanical Technology (BSMT) of the Eastern Visayas State University (EVSU) was satisfactorily compliant within the framework of the national and international standards more specifically to the Washington Accord through the Philippine Technical Council (PTC), the ASEAN Qualifications Reference Network (AQRN), the Accrediting Agency for Chartered Colleges and Universities in the Philippines (AACUP), and the Commission on Higher Education (CHED).

## Recommendations

In the light of the findings of the study, it is recommended that (1) The faculty must attend research trainings/seminars/workshops either local, national, or international at least three to five times a year; (2) The school administration has to review the university code for the incentives of the faculty and students who presented and won research competitions in the local, national, and international fora and provide funding for those who will present and publish research outputs; (3) The library needs to acquire latest editions of books related to Mechanical Technology, and hire a licensed librarian who is most knowledgeable about the field; (4) The course syllabi of the Bachelor of Science in Mechanical Technology (BSMT) need to be reviewed on its preparedness for AACUP Level IV accreditation; (5) The university has to maintain and do more to enhance its manpower and physical resource that serve as the frontliners, so the standard of the school will be maintained; (6) Review the BSMT curriculum to be a pre-engineering program; (7) Moreover, the following titles are suggested for future studies: (a) Curriculum Review of Bachelor of Mechanical Technology (BSMT) in Eastern Visayas State University, Tacloban City; (b) Preparedness of BSMT Students to take Bachelor of Science in Mechanical Engineering; (c) Status of Technology Programs Offered in Eastern Visayas State Universities; (d) Applicability of BSMT Curriculum to the International Standards; and (e) Readiness of BSMT OJTs to the Workplace Environment; and (8) A further study has to be conducted in relation to the Bachelor of Science in Mechanical Technology especially on how it will be improved including the implementation of the Pre- Engineering Program.

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