

SELF - ASSESSMENT REPORT FOR AUN-QA



HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATION
FACULTY OF VEHICLE AND ENERGY ENGINEERING



BACHELOR OF ENGINEERING IN AUTOMOTIVE ENGINEERING TECHNOLOGY



The 59th AUN Quality Assessment at Programme Level
March 15 - 17, 2016



AUN-QA SELF-ASSESSMENT REPORT
of the Bachelor of Engineering in
AUTOMOTIVE ENGINEERING TECHNOLOGY

We hereby confirm to approve this AUN-QA Self-Assessment Report of the Bachelor of Engineering in Automotive Engineering Technology programme for assessment according to AUN-QA Criteria (V2.0).

A handwritten signature in blue ink, appearing to read "Lythoma", is written over a horizontal blue line.

M.Eng. Huynh Phuoc Son

Dean

Faculty of Vehicle and Energy Engineering

TABLE OF CONTENTS

Table of Contents.....	1
List of tables.....	5
List of figures.....	6
Abbreviations	7
Part 1. INTRODUCTION	8
1. Ho Chi Minh City University of Technology and Education	9
2. Faculty of Vehicle and Energy Engineering.....	9
2.1. Establishment and development history	9
2.2. Vision	11
2.3. Mission	11
2.4. Core values	12
3. Academic programme of Automotive Engineering Technology.....	12
Part 2. AUN-QA Criteria Requirements	14
1. Expected Learning Outcomes	15
1.1. The expected learning outcomes have been clearly formulated and translated into the programme	15
1.2. The AET programme promotes life-long learning.....	18
1.3. Expected Learning Outcomes cover both generic knowledge and specialized knowledge and skills	19
1.4. The expected learning outcomes clearly reflect the requirements of stakeholders	19
2. Programme Specification	20
2.1. The university uses programme specification	20
2.2. Programme specification shows the expected learning outcomes and how these can be achieved.	22
2.3. The programme specification is informative, communicated, and made available to the stakeholders.	24
3. Programme Structure and Content.....	24
3.1. The programme content shows a good balance between generic and specialized skills and knowledge	24
3.2. The programme reflects the vision and missions of the university	25
3.3. The contribution made by each course to achieving the learning outcomes is clear	25
3.4. The programme is coherent and all subjects and courses have been integrated	27
3.5. The programme shows breadth and depth	28
3.6. The programme clearly shows the basic courses, intermediate courses, specialized courses and the final project, thesis or dissertation	30
3.7. The programme content is up-to-date.....	30

4. Teaching and Learning Strategy	31
4.1. The Faculty has a clear teaching and learning strategy	31
4.2. The teaching and learning strategy enables students to acquire and use knowledge academically	32
4.3. The teaching and learning strategy is student oriented and stimulates quality learning	32
4.4. The teaching and learning strategy stimulates action learning and facilitates learning to learn	33
5. Student Assessment	33
5.1. Student assessment covers student entrance, student progress and exit tests	33
5.2. The assessment is criterion-referenced.....	35
5.3. Student assessment uses a variety of methods	36
5.4. Student assessment reflects the expected learning outcomes and the content of the programme	36
5.5. The criteria for assessment are explicit and well-known	36
5.6. The assessment methods cover the objectives of the curriculum	37
5.7. The standards applied in the assessment are explicit and consistent	37
6. Academic Staff Quality.....	38
6.1. The staffs are competent for their tasks.....	38
6.2. The staffs are sufficient to deliver the curriculum adequately	38
6.3. Recruitment and promotion are based on academic merits	39
6.4. The roles and relationship of staff members are well defined and understood	40
6.5. Duties allocated are appropriate to qualifications, experience and skills	40
6.6. Staff workload and incentive systems are designed to support the quality of teaching and learning	40
6.7. Accountability of the staff members is well regulated	41
6.8. There are provisions for review, consultation and redeployment	42
6.9. Termination and retirement are planned and well implemented	42
6.10. There is an efficient appraisal system	43
7. Support Staff Quality	43
7.1. The library staff is competent and adequate in providing a satisfactory level of service	43
7.2. The laboratory and workshop staffs are competent and adequate in providing a satisfactory level of service	45
7.3. The computer facility staff are competent and adequate in providing a satisfactory level of service	45
7.4. The student services staff are competent and adequate in providing a satisfactory level of service	46

8. Student Quality	47
8.1. There is a clear student intake policy	47
8.2. The student admission process is adequate	48
8.3. The actual study load is in line with the prescribed load	49
9. Student Advice and Support	50
9.1. There is an adequate student progress monitoring system	50
9.2. Students get adequate academic advice, support and feedback on their performance....	50
9.3. Mentoring for students is adequate.....	51
9.4. The physical, social and psychological environment for the student is satisfactory	51
10. Facilities and Infrastructure	52
10.1. The lecture facilities (lecture halls, small course rooms) are adequate	53
10.2. The library is adequate and up-to-date	53
10.3. The laboratories are adequate and up-to-date	54
10.4. The computer facilities are adequate and up-to-date.....	56
10.5. Environmental health and safety standards meet the local requirements in all aspects	57
11. Quality Assurance of Teaching and Learning Process	57
11.1. The curriculum is developed by all teaching staff members	57
11.2. The curriculum development involves students	58
11.3. The curriculum development involves the labor market	58
11.4. The curriculum is regularly evaluated at reasonable time periods	59
11.5. Courses and curriculum are subject to structured student evaluation	59
11.6. Feedback from various stakeholders is used for improvement	59
11.7. The teaching and learning process, assessment schemes, the assessment methods and the assessment itself are always subject to quality assurance and continuous improvement.....	61
12. Staff Development Activities.....	62
12.1. There is a clear plan on the needs for training and development of both academic and support staff.....	62
12.2. The training and development activities for both academic and support staff are adequate to the identified needs	63
13. Stakeholders Feedback	63
13.1. There is adequate structured feedback from the labor market	64
13.2. There is adequate structured feedback from the students and alumni.....	64
13.3. There is adequate structured feedback from the staffs	65
14. Output	65
14.1. The pass rate is satisfactory and dropout rate is of acceptable level	65

14.2. Average time to graduate is satisfactory	66
14.3. Employability of graduates.....	66
14.4. The level of research activities by academic staff and students is satisfactory	67
15. Stakeholders Satisfaction	68
The feedback from stakeholders is satisfactory.....	68
A. Student feedback.....	68
B. Graduates feedback.....	69
C. Alumni and enterprises satisfaction	69
Part 3. STRENGTHS AND WEAKNESSES ANALYSIS	70
1. Criterion 1: Expected Learning Outcomes	71
2. Criterion 2: Programme Specification	71
3. Criterion 3: Programme Content and Structure	71
4. Criterion 4: Teaching and Learning Strategy.....	72
5. Criterion 5: Student Assessment.....	72
6. Criterion 6: Academic Staff Quality	73
7. Criterion 7: Support Staff Quality.....	73
8. Criterion 8: Student Quality.....	74
9. Criterion 9: Student Advice and Support.....	74
10. Criterion 10: Facilities and Infrastructure.....	75
11. Criterion 11: Quality Assurance of Teaching and Learning Process.....	75
12. Criterion 12: Staff Development Activites	76
13. Criterion 13: Stakeholders Feedback	76
14. Criterion 14: Output.....	77
15. Criterion 15: Stakeholders Satisfaction	77
Checklist for AUN-QA self- assessment at programme level	78
APPENDIX.	82

List of Tables

Table 1.1. The expected learning outcomes of AET programme	16
Table 1.2. Correlation and consistency between educational objectives and learning outcomes of AET Programme	17
Table 2.1. Automotive Engineering Technology undergraduate programme specification	21
Table 3.1. Correlation matrix of learning outcomes	26
Table 5.1. Admission targets of the AET Programme in the last five years	34
Table 5.2. Criteria for assessing student study results	35
Table 6.1. Total number of teaching staff	38
Table 6.2. FTE ratio of teaching staff to number of students.....	39
Table 7.1. Total number of library staff	44
Table 7.2. Laboratory and workshop staff	45
Table 7.3. Name list and duties of AAO's advisory team.....	46
Table 7.4. Name list and duties of ASAO's advisory team	46
Table 7.5. Name list and duties of SSC's advisory team	47
Table 8.1 AET Programme's standard intake scores in the last 3 academic years	48
Table 8.2. Intake of first year student.....	48
Table 10.1. Types of available documents in the library	54
Table 10.2. List of FVE laboratories.....	55
Table 10.3. List of FVE workshops	55
Table 14.1. Student performance for 8 cohorts	66
Table 14.2. The employment status of graduates (after 03 months of graduation of UTE)	66
Table 14.3. Employment status of AET graduates in in recent surveys	67
Table 14.4. The amount of scientific research by FVE students and lecturers	68
Table 14.5. The number of research papers by FVE lecturers	68

List of Figures

Figure 1.1. Course distribution chart	17
Figure 1.2. Flowchart of further education of automotive engineering students	19
Figure 3.1. Proportion of knowledge areas in the programme.....	25
Figure 3.2. Mapping of Automotive Engineering Technology core courses.....	29

Abbreviations

No.	Abbreviations	Notes
1	AAO	Academic Affairs Office
2	AET	Automotive Engineering Technology
3	AIO	Academic Inspectorate Office
4	ASAO	Admission and Student Affairs Office
5	AUN-QA	ASEAN University Network – Quality Assurance
6	Assc. Pro.	Associate Professor
7	AY	Academic year
8	CDIO	Conceive Design Implement Operate
9	CEFR	Common European Framework of Reference
10	ELO	Expected learning outcome(s)
11	FTE	Teacher/Staff Full-time Equivalency
12	FVE	Faculty of Vehicle and Energy Engineering
13	HCMC	Ho Chi Minh City
14	HCMUTE	Ho Chi Minh City University of Technology and Education
15	LO	Learning outcomes
16	MOET	Ministry of Education and Training
17	PhD	Doctor of Philosophy
18	PO	Programme outcome(s)
19	PE	Physical education
20	PRO	Public Relations Office
21	QAO	Quality Assurance Office
22	UTE	University of Technology and Education
23	SSC	Student Service Center

PART I

INTRODUCTION

1. Ho Chi Minh City University of Technology and Education (HCMUTE)

Founded on October 05th 1962, HCMUTE is one of the leading universities in terms of training and providing the high quality human resources in science and technology, to serve for the industrialization and modernization of the provinces in the south of Vietnam.

In 2015, HCMUTE has 15 faculties, 16 functional units, 14 institutes and centers. The total number of lecturers is 577. The university has an area of 21.036 hectares, with 60.333 hectares of construction floors.

Vision

HCMUTE becomes the national No. 1 center of training and applied science research in technology and professional pedagogy, on a par with other major universities in the South-East Asia area and the world. HCMUTE is the motivation for sustainable development of the nationwide vocational education system.

Mission

Mission of HCMUTE is to:

- Be an organization for training, research and technology & professional education science transfer.
- Provide technical manpower and high quality scientific products to construct and develop the country;
- Actively contribute into kernel and comprehensive renewals in education and training in the country;
- Integrate into international education community and maintain sustainable development.

2. Faculty of Vehicle and Energy Engineering

2.1. Establishment and development history

Originally, Faculty of Vehicle and Energy Engineering was the Board of Automotive Engineering founded in 1962. In 1972, it was renamed as the Faculty of Mechanical and Automotive Engineering in Thu Duc College of Education. In 1975, it was the Department of Automobiles belonging to Faculty of Mechanical Engineering. Being split from the Faculty of Mechanical Engineering in 1987, the department has been turned into Faculty of Vehicle and Energy Engineering directly belonging to Ho Chi Minh City University of Technology and Education since then.

With 50 years of building and developing, Faculty of Vehicle and Energy Engineering has strengthened its own brand name, position and prestige highly recognized in the society. The faculty is one of the biggest and pioneer faculties of the university in training, research and other activities as well as the leader in training Automotive Engineering Technology among technical training institutions of the whole country.

At present, the faculty is responsible for training graduate students in Automotive Engineering and Thermotechnics and Refrigeration Technology, university-undergraduates in Automotive Technology and Thermotechnics and Refrigeration Technology, and college-undergraduates in Automotive Technology. The faculty is employing the framework of 150-credit academic programmes for training university students. All of its curriculums have been innovated towards and updated to catch up with the rapid development of science and technology. The faculty has also applied the quality management system of ISO 9001:2000 to all the faculty's management and activities since 2006.

The Faculty, with a team of lecturers and scientists who are highly skilled and experienced in training, research and technology transfer, has trained and supplied a great number of Masters, engineers and technical teachers of Automotive Engineering Technology and Thermotechnics and Refrigeration Engineering Technology. Graduates from the Faculty have been highly evaluated in terms of professional expertise and skills which enable them to meet the requirements of different employers. They have been working in all of the fields of management, teaching, manufacturing, technical services, business, etc.

Besides, the faculty is a prestigious centre in fostering professional knowledge for, providing further training services and technological to technical school teachers and various enterprises. It has been conducting research into and manufacturing teaching models and teaching aids for schools and institutions with related training areas.

Up to now, the Faculty of Vehicle and Energy Engineering has four sections: Automotive Engine, Automotive Chassis, Automotive Electricity and Thermotechnics and Refrigeration. The teaching staff is composed of 59 people (including 39 full-time teachers), among whom are 03 associate professors, 11 doctors, 12 PhD students and 32 masters.

A system of seminar rooms, laboratories and workshops with state-of-the-art equipment is available to meet the learning and researching needs of students and lecturers respectively, including: four laboratories (Automotive Engine, Automotive Chassis, Automotive Mechatronic and Microchannel Heat Exchange), six workshops (Gasoline Engine, Diesel Engine, Automotive Chassis, Automotive Electricity, Body and Painting Work, Thermotechnics and Refrigeration) and one Open Lab for students' use.

The Faculty of Vehicle and Energy Engineering has established close and efficient cooperation with a range of domestic and international organizations, universities and companies in terms of training, research, internship, job, scholarships, equipment, etc. These partners include: Hanoi University of Science and Technology, Danang University of Technology, Ho Chi Minh University of Industry, University of Transport and Communication, HEEAP, Toyota

VN, Ford VN, Isuzu VN, Bosch, SEAPRODEX Refrigeration Industry Corporation, Guntner, Bitzer, Daikin, to name a few. The faculty is currently hand in hand with Toyota Vietnam to establish Toyota Technician Training Center, offering “Toyota Technical Education Programme” (T-TEP)

Following the motto of “*Best training quality and relevance to social demands*” , the Faculty of Vehicle and Energy Engineering has been making unceasing improvements with a view to bringing the most ideal learning environment and conditions for the learners to fully promote their potentials and creativity, widen professional knowledge and sharpen their skills to meet the demands of the society. Engineers, graduating from the Faculty, are usually given preferences in recruitment by not only domestic but also foreign employers, taking charge of important work and holding key positions at research institutes, educational institutions, companies, plants or factories. For the last 5 years, annually, 90% engineers from the faculty have succeeded in finding suitable jobs after three months of graduating.

2.2. Vision

By 2020, Faculty of Vehicle and Energy Engineering of Ho Chi Minh City University of Technology and Education will have thrived to become a nationally-leading training and applied science research centre in the field of automotive engineering, automobile technology, and Thermotechnics and Refrigeration, on a par with other universities of high prestige in the South-East Asia area and the world, and fulfill the duty of supplying high quality manpower needed for the building up and development of our country.

2.3. Mission

Missions of Faculty of Vehicle and Energy Engineering in Ho Chi Minh City University of Technology and Education are to create a modern teaching and learning environment for students and provide them with the optimal condition for study and research in Automotive Technology and Thermotechnics and Refrigeration fields; to supply high quality manpower and scientific products in Energy Mechanical Engineering, Automotive Engineering, Automotive Technology, Thermotechnics and Refrigeration; and to actively take part in international integration in training and scientific research.

Alignment between the faculty’s missions and the university’s missions

HCMUTE missions	FVE missions
a) Becoming one of the leading organizations for training, research and	bringing learners and teachers a modern teaching-learning environment and the

technology transfer in Vietnam;	optimal condition for study and research in Automotive Technology and Thermotechnics and Refrigeration
b) Supplying reliable and qualified human resources as well as high quality scientific products to construct and develop the country;	Supplying high quality manpower and scientific products in Energy Mechanical Engineering, Automotive Engineering, Automotive Technology, Thermotechnics and Refrigeration.
c) Actively contributing to the kernel and comprehensive renewals of national education and training; integrate into the world and develop sustainably.	Taking part in international integration by means of training and research

2.4. Core values

The core values of advanced and cutting-edge education which have been and will be honored, preserved and promoted in a creative manner by Faculty of Vehicle and Energy Engineering are presented as below:

- Preserving and promoting the traditional values of Vietnamese people
- Nourishing talents and creativity
- Respecting the learners' benefits , making them the center of all activities
- Constructing a learning society
- Appreciating the quality, efficiency and confidence of the society
- Integrating, collaborating and sharing

3. Academic programme of Automotive Engineering Technology

The academic programme of Automotive Engineering Technology has been applied since 1976. Up to now, there have been 35 courses with over 4,000 students completing the programme. During the training process, the faculty has always followed the “learner-centered” approach. Accordingly, all of its activities have been aimed at providing students with the optimal environment to enhance knowledge, sharpen professional skills as well as strengthen morality and personalities.

Objectives of Automotive Engineering Technology Programme

Automotive Engineering Technology Undergraduate Programme has the following objectives:

- PO1. Have good generic knowledge, fundamental engineering knowledge and intensive knowledge in the field of automotive engineering
- PO2. Promote their own self-study skill, problem-solving skill and professional skills of automotive engineering field.
- PO3. Communicate effectively, act as a good leader and work well in teams.
- PO4. Improve their ability in conceiving, designing, implementing, operating automotive engineering systems, attain the ability for self-study and life-long learning.

Career opportunity: The programme equips graduates with adequate competencies to meet the diverse requirements of job market and enables them to work at:

- Factories manufacturing automobile spare parts and accessories or designing and assembling automobiles
- Agencies or enterprises trading in automobiles and automotive equipment
- Motor-vehicle inspection stations
- Automobile and automotive equipment research and transfer institutes
- Entities directly providing or managing automotive services and engineering technology.

Based on feedback from such stakeholders as related enterprises, alumni, etc..., the academic programme of Automotive Technology is revised, assessed and renovated every two years. Therefore, graduates in this major have always met the requirements of the job market. Engineers, graduating from the Faculty of Vehicle and Energy Engineering, are usually given preferences in recruitment and highly appreciated in working by not only domestic but also foreign institutions.

Many alumni hold key positions in research institutes, professional educational institutions, companies, plants or factories. The alumni association of the faculty is a closely interconnected network which has not only greatly helped the renovation of the academic programme with their useful and practical feedback but also provided tremendous assistance to the faculty in vocational orientation and internship opportunities for the next generation of students.

The prodigious quantity and quality of graduates in this major have been solid proof of the faculty's role and importance in training high quality manpower serving the development of automotive industry in the central economic zones of the South Vietnam and the industrialization and modernization of the country.

PART II

AUN-QA CRITERIA REQUIREMENTS

1. Expected Learning Outcomes

1.1. The expected learning outcomes have been clearly formulated and translated into the programme

The expected learning outcomes

After completing the programme, graduates are able to:

- ELO 1: Applying basic knowledge of mathematics and science into engineering.
- ELO 2: Applying technology fundamental and specialized knowledge in Automotive Engineering Technology.
- ELO 3: Applying specialized knowledge in designing, calculating, testing, diagnosing automotive systems or managing and providing automobile services.
- ELO 4: Analyzing, explaining and reasoning to solve automotive engineering problems.
- ELO 5: Experimenting and discovering automotive engineering knowledge.
- ELO 6: Attaining ability to think critically and systematically about automotive engineering problems.
- ELO 7: Having management and professional skills necessary for promoting productivity in automobile industry.
- ELO 11: Generalizing activities of organizations and enterprises in automotive industry.
- ELO 12: Conceiving ideas of automobile systems.
- ELO 13: Designing, calculating and simulating working mechanism of automobile components.
- ELO 14: Having awareness of social effects and demands on Automotive Engineering Technology industry.
- ELO 15: Having awareness of professional development and life-long learning.
- ELO 16: Possessing professional ethics, environmental awareness and professional working manner.

Table 1.1. The expected learning outcomes of AET programme

Group of ELOs	ELOs
General Knowledge	<ul style="list-style-type: none"> ▪ ELO 1: Applying basic knowledge of mathematics and science into engineering.
Technology Fundamental Knowledge	<ul style="list-style-type: none"> ▪ ELO 2: Applying technology fundamental and specialized knowledge in Automotive Engineering Technology. ▪ ELO 3: Applying specialized knowledge in designing, calculating, testing, diagnosing automotive systems or managing and providing automobile services
Professional Skills	<ul style="list-style-type: none"> ▪ ELO 4: Analyzing, explaining and reasoning to solve automotive engineering problems. ▪ ELO 5: Experimenting and discovering automotive engineering knowledge. ▪ ELO 6: Attaining ability to think critically and systematically about automotive engineering problems. ▪ ELO 7: Having management and professional skills necessary for promoting productivity in automobile industry. ▪ ELO 11: Generalizing activities of organizations and enterprises in automotive industry. ▪ ELO 12: Conceiving ideas of automobile systems. ▪ ELO 13: Designing, calculating and simulating working mechanism of automobile components.
Generic Skills	<ul style="list-style-type: none"> ▪ ELO 8: Being able to lead and function in teams. ▪ ELO 9: Being able to communicate well in written and spoken forms. ▪ ELO 10: Being able to communicate in English.
Attitude and Awareness	<ul style="list-style-type: none"> ▪ ELO 14: Having awareness of social effects and demands on Automotive Engineering Technology industry. ▪ ELO 15: Having awareness of professional development and life-long learning. ▪ ELO 16: Possessing professional ethics, environmental awareness and professional working manner.

There is a complete match between objectives and expected learning outcomes of Automotive Engineering Technology programme as illustrated in Table 1.2:

Table 1.2. Correlation and consistency between educational objectives and learning outcomes of AET Programme

Programme objectives (PO)	Expected Learning Outcomes (ELO)
PO1. Have good generic knowledge, fundamental engineering knowledge and intensive knowledge in the field of automotive engineering	ELO 1,2,3
PO2. Promote their own self-study skill, problem-solving skill and professional skills of automotive engineering field.	ELO 4,5,6,7
PO3. Communicate effectively, act as a good leader and work well in teams	ELO 8,9,10
PO4. Improve their ability in conceiving, designing, implementing, operating automotive engineering systems, attain the ability for self-study and life-long learning.	ELO 11,12,13, 14, 15, 16

The expected learning outcomes cover three domains of Bloom taxonomy (knowledge, physical skill and attitudes) at higher order thinking levels (Table 1.2). Expected learning outcomes of the academic programme are firmly based on Bloom's taxonomy, including every standard on generic and specialized knowledge and skills as well as attitudes and awareness. These are transferred into the programme as follows:

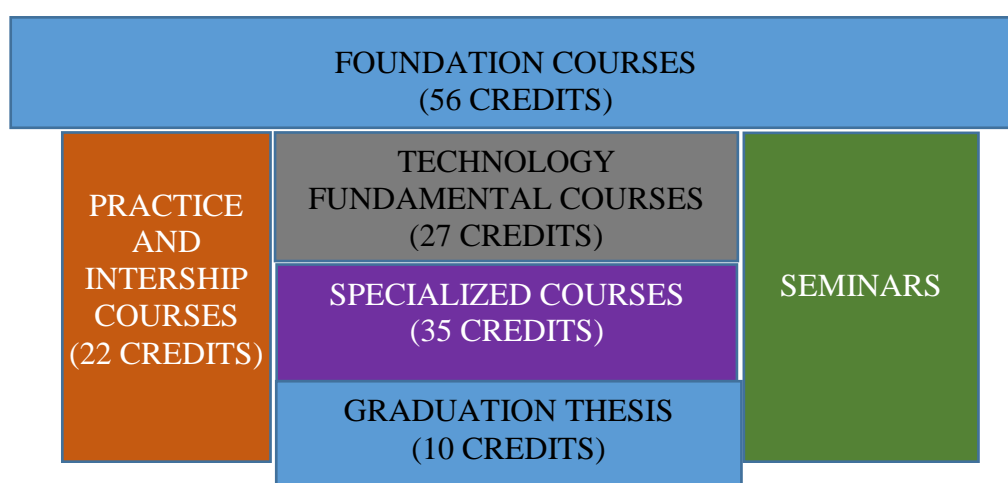


Figure 1.1. Course distribution chart

1.2. The AET programme promotes life-long learning

Teaching and learning activities of Automotive Engineering Technology Programme are aimed at developing 8 key competences of life-long learning based on CEFR

1. Communication in the mother tongue;
2. Communication in foreign languages;
3. Mathematical competence and basic competences in science and technology;
4. Digital competence;
5. Learning to learn;
6. Social and civic competences;
7. Sense of initiative and entrepreneurship;
8. Cultural awareness and expression.

Every syllabus in the curriculum includes clear instructions for self-study, self-discovery of knowledge via practice, experiments, projects and graduation thesis. Accordingly, students can observe, analyze, diagnose problems, then search for and study related documents for solutions.

It has been shown that learning becomes more efficient via communication. Therefore, in every subject, they are always given opportunities to work in groups, through which they learn how to communicate ideas and learn from others [Exh. 1.2-04]. Besides, foreign languages and computing courses, which occupy 10% of the curriculum, are useful tools for learners in their search for diverse resources serving life-long learning.

During the teaching process, FVE lecturers usually hold seminars to introduce to students new rapid scientific and technological developments in automotive industry, [Exh. 1.2-05]. As required in the curriculum, students are also taken to or do internships at manufacturing factories [Exh. 1.2-06]. These activities are expected to provide students access to real working environment, to learn from and be given guidance by skilled engineers. Accordingly, they not only have chances to practice what they have learnt but also become aware that the knowledge taught in the university is very basic while it is variable and complicated in the reality. Furthermore, with the fierce selection and competition in the job market, it is imperative that an automotive engineer must learn persistently to develop their professional competence.

Noticing that the happiness in creating scientific and technical products is a big motive for students to passionately study and to develop directions for their life-long learning, Faculty of Vehicle and Energy Engineering has always encouraged, supported them to realize their creative ideas and helped them to take part in different institutional, national and regional competitions [Exh. 1.2-07].

The learning process of students majored in Automotive Engineering Technology at Ho Chi Minh City University of Technology and Education is shown in Figure 1.1. After graduating from high school, passing the university entrance exam, they have to pursue a 4-year academic programme. After gaining the Bachelor's degree for engineers, and if they wish, they can continue with a Master programme of closely related majors: Mechanical Engineering, Vehicle and Energy Engineering Technology, Education, Teaching and Learning Theory and Methodology.

Upon completion of Master's degree in Vehicle and Energy Engineering Technology, they can continue taking part in doctoral programme of the majors, such as: Mechanical Engineering,

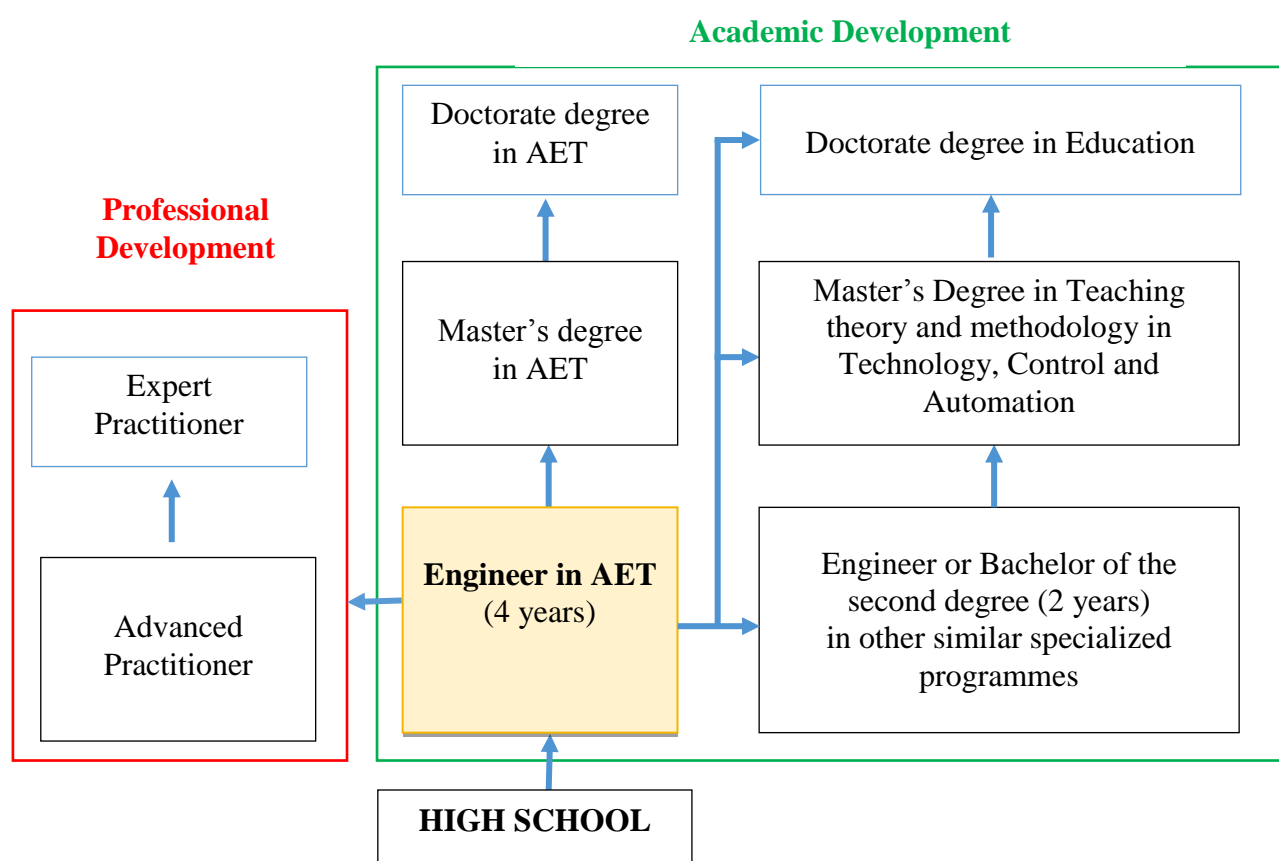


Figure 1.2. Flowchart of further education of Automotive Engineering students

The academic programme ensures the requirements of stakeholders are satisfied by a system of electives [Exh. 1.2-08]. The 2008 curriculum was not inclusive of electives. Not until the 2010 curriculum were specialized elective courses added. During the design of 2012 curriculum, Faculty of Vehicle and Energy Engineering realized that the system of electives must involve social and specialized subjects to ensure the further education of learners as well as the adaptability to fluctuations in social demands [Exh. 1.2-09].

1.3. Expected Learning Outcomes cover both generic knowledge and specialized skills and knowledge

The ELOs of AET Programmes cover both general and technological knowledge and skills, as well as attitude and awareness, as shown at Table 1.1-ELOs

1.4. The expected learning outcomes clearly reflect the requirements of stakeholders

The university's education objectives as well as programme objectives are the foundation to develop expected learning outcomes in line with the requirements of the stakeholders. Therefore, the expected learning outcomes are based on the contributive opinions of the following 4 groups of stakeholders:

1. Enterprises (employers)
2. Alumni
3. Teaching staff

4. Students

Stakeholders' feedback is regarded as the cornerstone for the modification and improvement of the academic programme so that its graduates can meet their requirements. ELOs have been constructed according to the following process:

- 1) FVE has analyzed the State's high education standards as stated in Chapter VI, Education Law issued in 2005
- 2) FVE has identified the requirements listed in the academic regulations of MOET.
- 3) FVE has engaged academic managers, experts and teaching staff into the design of the academic programme. FVE's management board and section heads name the courses and prepare course descriptions which are then be submitted to the scientific board of the faculty and, subsequently put forward to the university scientific board for approval [Exh. 1.4-01]. During the process, other related faculties frequently give useful feedback to complete the programme successfully.
- 4) FVE has collected feedback from current students to improve the curriculum by holding meetings between the management of the faculty or university and them once every semester [Exh. 1.4-02]. Over the last years, the content of the academic programme has been consecutively improved in the way that is suitable for the new world and responds well to learners' needs [Exh. 1.4-03].
- 5) FVE has engaged alumni, graduates [Exh. 1.4-04], specialists in Vehicle Engineering from different training institutions and employers into the design of the academic programme by organizing conferences where feedback for the curriculum development from these stakeholders are collected by means of questionnaire [Exh. 1.4-05]. The feedback from these stakeholders has been put into analysis to identify the areas of knowledge, skills and attitudes which students are expected to attain upon graduation. [Exh. 1.4-06]
- 6) FVE has referred to other relevant curriculums from national and international prestigious universities such as Hanoi University of Science and Technology, Ho Chi Minh City University of Technology, etc. [Exh. 1.4-07]
- 7) FVE has translated the stakeholders' requirements into the drafted ELOs of the academic programme.
- 8) Investigating, evaluating, collecting and analyzing feedback on the academic programme of Automotive Engineering Technology from employers are done annually by organizing conferences whose attendants are national and international enterprises, and alumnus traditional reunions. According to the university policies, a section is allowed to change 10% of the curriculum content with approval of the faculty and university's scientific boards to make the curriculum more adaptable and suitable for the requirements of labor market. [Exh. 1.4-08]

2. Programme Specification

2.1. The university uses programme specification

The programme specification of Automotive Engineering Technology is published on websites, brochures, students' handbooks, etc. It is a reliable source of information not only for

current and prospective students to know about the programme, but also for employers to be informed of competences and other useful skills with which students are equipped by the programme. The university and faculty have always strictly complied with the programme specification in the implementation of every training activity, including intra- and extra-curricular activities for FVE students.

The programme specification of Automotive Engineering Technology is filed electronically and in hardcopy. It has been uploaded on the faculty website at the following address: <http://fae.hcmute.edu.vn/>

Table 2.1. Automotive Engineering Technology undergraduate programme specification

Academic programme	Automotive Engineering Technology
Major code	52510205
Types of training	Full time
Degree	Bachelor's degree in Automotive Engineering Technology
Training time	4 years
Degree awarding institution	UTE
Training institution	Ho Chi Minh City University of Technology and Education
Prospective students	High school graduates
Admission Criteria	As regulated by Ministry of Education and Training <ul style="list-style-type: none"> – From 2012 to 2014, candidates were required to take university entrance exams with 3 subjects: Maths, Physics and Chemistry. – For academic year 2014 – 2015, the candidate selection was based on the results of national high school graduation exams (with three subjects of Maths, Physics and Chemistry) together with the 3-year academic results at high school.
Total number of credits	150 credits (excluding Physical Education and National Defense Education credits)
Programme content	Details are described in the curriculum
Training objectives	Table 1.1

Learning outcomes	Table 1.2
Training procedure	<ul style="list-style-type: none"> - The academic programme includes three main parts: Generic education, specialized knowledge and Graduation thesis. All of them have strong connection and are be taught by different teachers: <ul style="list-style-type: none"> + Lecturers from the Faculty of Foundation Science are in charge of teaching generic knowledge. + Lecturers from the Faculty of Vehicles and Energy Engineering are in charge of teaching specialized knowledge. + Specific lecturers will instruct students to do research within 6 months in graduation thesis, which is aimed at bringing students opportunities to enhance knowledge and sharpen skills. - The academic programme lasts 8 semesters. Excellent students are allowed to study more credits in one semester, and, therefore, graduate sooner than others. Maximum time for programme completion is 8 years.
Graduation conditions	Students who have fully completed 150 credits of the programme with the minimum cumulative GPA of 5.0, are not involved in any criminal prosecution or under suspension and have had the certificates of Physical Education and National Defense Education are considered qualified for graduation.
Extracurricular activities	Students are encouraged to take part in different activities in art, music, voluntary activities and community events.
<p style="text-align: right;"><i>Date of written Programme Specification: December 25, 2012</i></p> <p style="text-align: right;"><i>Date of Revised Programme Specification: December 25, 2014</i></p>	

2.2. The Programme specification shows the expected learning outcomes and how these can be achieved

ELOs of the Automotive Engineering Technology programme are considered the cornerstone for all teaching and learning activities with a view to training high quality human resources capable of meeting the demands of the society. ELOs of Automotive Engineering

Technology programme are developed on the basis of the university's educational philosophy, vision and missions. They are written and clearly stated in Automotive Engineering Technology programme specification (see LOs in Item 2.1) [Exh. 2.2-01], [Exh. 2.2-02], with the following link: (<http://hcmute.edu.vn/>)

More specifically, the ELOs' details and methodology to achieve the expected learning outcomes are clearly described in each course' syllabus with a view to ensuring the validity of the disclosed learning outcomes. In order to attain the expected learning outcomes, the programme is based on Credit system. Apart from specifying the amount of self-study time via homework and self-study contents, each syllabus also includes the required amount of knowledge and skills that students must obtain in the course [Exh. 2.2-03].

There is a reference to relevant curricula of other national and international prestigious universities in the design of the programme [Exh. 2.2-04]. The development of Automotive Engineering Technology programme has been the combination of practical experience and reference to relevant programmes by Hanoi University of Science and Technology, Ho Chi Minh City University of Technology, Danang University of Technology, Ho Chi Minh University of Industry. Table 2.2 shows the relationship between expected learning outcomes and intended programme structure.

According to the 150-credit curriculum workshop held by the Faculty of Vehicle and Energy Engineering, there has been an increasingly big gap between competence of the faculty's new graduates and social requirements. These are also the objectives of the Automotive Engineering Technology programme (4 years) with the reduction from 185 down to 150 credits, allowing students more time for self-study, acquiring soft skills and meeting the stakeholders' requirements.

Being applied from 2012, the 150-credit curriculum is composed of two main semesters per year, with the duration of 21 weeks per semester (one week for course registration, 15 weeks for in-class learning, 1 week for self-revision and 4 weeks for final tests). Each student must register at least 15 credits per semester. They can also learn more credits to finish the programme ahead of schedule. In the last semester, they embark on a project and write a graduation thesis which is to prove that they can apply what they have learnt to solve a real problem.

2.3. The programme specification is informative, communicated, and made available to the stakeholders

Programme specification includes programme structure, learning outcomes (correlation matrix) and learning flowchart for each semester, from which students can have clear and detailed information to register enough courses to graduate on time. In details, every syllabus provides stakeholders with content, course allocation, task types, assessment methods and types, references, requirements for students to be allowed for final tests, prerequisite and concurrent subjects, etc. This not only helps students in actively making their own study planners but also facilitates employers in better understanding course content, teaching methods and specific skills that they have after graduating.

The programme specification is made available to lecturers, students and stakeholders through different channels: Website of Ho Chi Minh City University of Technology and Education [Exh. 2.3-02], FVE website [Exh. 2.3-01], student handbooks and leaflets delivered on Open Day, Admission Consultancy Day, etc. Besides, in student handbooks, a lot of relevant information is explicitly disclosed stated, for example: the processes to assess students' learning competence, to select students who are allowed to write graduation theses, to evaluate students' community services, procedure for course registration and other information giving guidance and advice to students on how to well perform their learning tasks such as: Regulation No. 43 issued by Ministry of Education and Training, suggested learning plan, etc. [Exh. 2.3-03]

Stakeholders can access the websites of Academic Affair Office [Exh. 2.3-04] or the faculty's [Exh. 2.3-05], and download the programme specification as well as expected learning outcomes.

3. Programme Structure and Content

The Automotive Engineering Technology programme structure shows a good balance between generic, technology fundamental and specialized knowledge. The courses in the programme are clearly integrated and make evident contributions to achieving the expected learning outcomes. The programme content is up-to-date. Besides, it obviously reflects the vision and missions of the university.

3.1. The programme content shows a good balance between generic and specialized skills and knowledge

The academic programme includes 150 credits (including 126 compulsory credits and 24 elective credits), in which general knowledge occupies 56 credits, technology fundamental knowledge accounts for 27, specialized knowledge includes 35 and 10 of them are for graduation

thesis, exclusive of Physical Education and National Defense Education [Exh. 3.1-01]. The programme shows a good balance between generic and specialized skills and knowledge as shown in Table 1.3. The programme structure is coherent and the subjects and courses have been integrated (Figure 3.1).

The Automotive Engineering Technology programme was developed and officially issued in 2012 [Exh. 3.1-02]. When the programme was being constructed, relevant curricula of other national and international prestigious universities were carefully referred [Exh. 3.1-03].

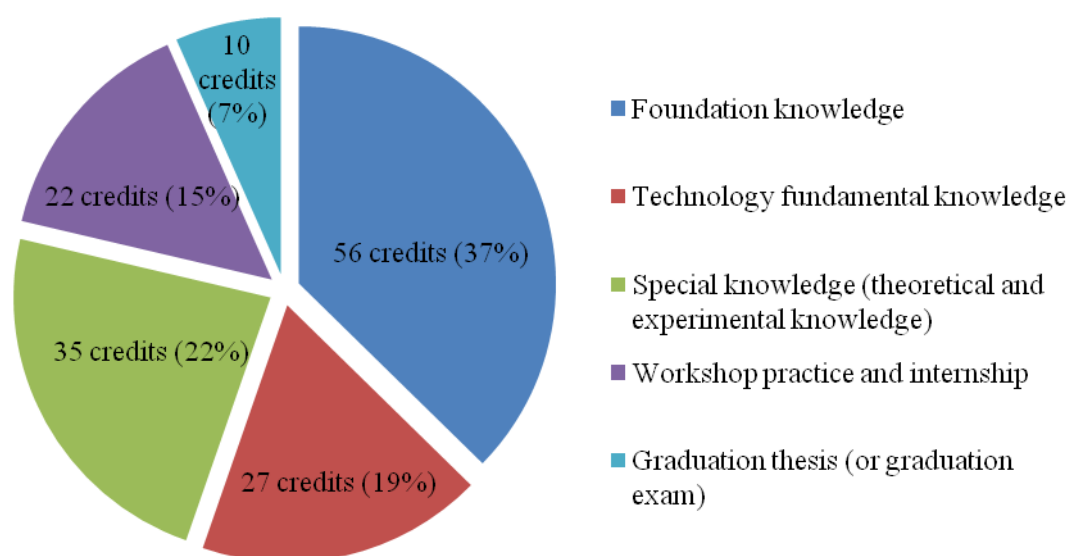


Figure 3.1. Proportion of knowledge areas in the programme

3.2. The programme reflects the vision and missions of the university

Aiming at turning Ho Chi Minh City University of Technology and Education into one of the prestigious universities which supply high quality manpower and valuable scientific products to the society, the faculty has developed the learning outcomes that focus on new graduate's knowledge, skills and quality. These learning outcomes reflect the vision and mission of the university [Exh. 3.2-01], [Exh. 3.2-02], and ensure that Automotive Engineering Technology students are trained to have intensive knowledge in this field, be able to meet the employers' demands and have professional ethics, self-study and life-long learning skills.

3.3. The contribution made by each course to achieving the learning outcomes is clear

The programme has clearly stated the expected learning outcomes, which can be achieved by thoroughly learning generic and specialized knowledge and upgrading skills and competence. After graduating, students can work as lecturers or teachers in universities, colleges, vocational schools, vocational training institutions, high schools, research institutes, governmental offices and enterprises that require automotive engineering technology knowledge. [Exh. 3.3-01]

Expected results of the programme are clearly included in learning outcomes, of which the details are translated into courses in the programme. The course specification in each semester is carefully written to ensure the consistency and continuity with increasing levels of difficulty and skills being properly developed in parallel with the heavier load of knowledge. Looking at the correlation matrix (Table 3.1), learners can realize clearly the effect of every single subject on each of the learning outcomes.

Every subject in the programme has its own syllabus which includes the information about: subject name, code, structure, prerequisite courses, objectives, general view of the subject, specific content of each chapter, reference, tasks and assignments and assessment approaches. Objectives stated in course syllabi are relevant to the programme learning outcomes [Exh. 3.3-02]. Learners can also take the sample of suggested learning plan printed in the student handbook as reference. [Exh. 3.3-03].

Table 3.1. Correlation matrix of learning outcomes

**CORRELATION MATRIX – AUTOMOTIVE ENGINEERING TECHNOLOGY
UNDERGRADUATE PROGRAMME**

INTRODUCE I REINFORCE R MASTER M

No.	ELOs	A			B				C			D			E		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Courses																
1	Introduction to Automotive Technology	I	I	I	I		I	I	R	R	R	I	R	I	I	I	I
2	Thermal Engineering		I	M		R		R	R					I	R		
3	Applied Fluid Mechanics		R	M	I	R	R	M	R		R		R	M	M	R	
4	Internal Combustion Engine Principles		M	R		M	M	R	R	R	R		R	R			R
5	Applied Microcontroller	R	R			M	R		R	R	R		R	M	M		
6	Practice of Internal Combustion Engines		R	M	M	M			R	M	R	R	M		R	R	R
7	Internal Combustion Engine Calculations		R	R		M		M	R	R	R		R	M		R	M
8	Practice of Automotive Powertrain System		R	M	M	M			R	M	R	R	M		R	R	R

9	Theory of Vehicles		R	R		M		M	R	R	R		R	M		R	M
10	Automotive Electrical and Electronic Systems		R	R		M		M	R	R	R		R	M		R	M
11	Practice of Engine Management Systems		R	M	M	M			R	M	R	R	M		R	R	R
12	Optional specialized subject		R			M	R		M	R	R		R	M		R	M
13	Practice of Automotive Chassis Systems		R	M	M	M			R	M	R	R	M		R	R	R
14	Vehicles Design		R		M	R		R	R	R	R			R		R	R
15	Electrical and Electronic Systems		R	R		M		M	R	R	R		R	M		R	M
16	Vehicle Automatic Control Systems		R	R		M		M	R	R	R		R	M		R	M
17	Vehicle Vibration & Noise		R	R	R	M	R	R	R	R	R		R			R	R
18	Auto Service Management		R		R	R		M	R	M	M	M	R	R	M	R	R
19	Optional subject		R		R	R	R	R	R	R	R		R			R	M
20	Practice of Automotive Body Electrical Systems		R	M	R	M			R		R			R	R	R	R
21	Practice of Automotive Body Electrical Systems		R	M	R	M	R	R	R	R	R		R	R	R	R	M
22	Automotive Safety and Convenience Systems		R		R	R	R	R	R	R	R		R	R	R	R	M
23	Graduation Internship		R	M	R	R	R	R	R	M	R	M	M	M	M	R	M
24	Graduation thesis or 3 special topics for graduation		R	M	R	M	R	M	R	M	R	R	M	M	M	M	M

3.4. The programme is coherent and all subjects and courses have been integrated

Since the programme structure is based on the Credit System [Exh. 3.4-01], learners can register courses suitable for their competence in each semester. However, in order to ensure the logics of teaching and the learners' thinking order development, the faculty has built up the learning plan for the programme very carefully. In this plan, with certain courses, students have to satisfy some requirements about the knowledge of prerequisite or previous subjects. For example, if they want to study the course "Internal Combustion Engine Practice", they must know the engine's operating principles, which were taught in the previous course called "Operating Principle of Internal Combustion Engine". These requirements are described clearly in each course syllabus [Exh. 3.4-02], and in the conditions for course registration in each semester [Exh. 3.4-03]

3.5. The programme shows breadth and depth

The programme show its breadth through 59 courses with the total number of credits up to 150, in which the generic knowledge occupies 56 credits, intermediate knowledge makes up for 29, specialized knowledge takes 55 credits and the remaining 10 credits for graduation thesis. In this programme, Physical Education and Nation Defense Education do not count any credits but they are considered as the requirement for graduation. [Exh, 3.5-01].

The programme structure guarantees its breadth because it includes almost all of the knowledge of natural and social sciences, as well as specialized and intermediate knowledge. Students are supplied with the knowledge to develop themselves professionally in 2 different ways: (1) general with the specialized knowledge of automobile engines, chassis and automotive electrical systems and (2) mechatronics with the knowledge of automatic automotive control systems, control programming, automotive data transmission, etc.

Besides, the depth of the programme is proved by the course arrangement, starting from generic, intermediate to specialized knowledge. Previous courses are the foundation for and closely related to the subsequent ones. Levels of difficulty of the courses increase by each semester. List of subsequent courses and advanced electives are reserved for seniors because these courses require a certain amount of knowledge to be acquired from the pre-requisite courses [Exh, 3.5.-02]. All of the courses have goals and objectives, logical structures and coherent design.

Based on the order of the courses as presented in Figure 3.2, it can be seen that the difficulty levels of the courses increase gradually. This logical order is strictly obeyed thanks to the constraints of prerequisite and previous courses clearly stated in every course syllabus. This order is to ensure that learners can gradually enhance their knowledge and skills without losing the basic knowledge or being overloaded.

In summary, the programme structure has been logically and scientifically developed. The continuous modifications and updates have been made with the contributions of enterprises and stakeholders and with strictly-refined reference to academic programmes of prestigious national and international universities. The programme contents have been updated constantly by adding new courses or integrated courses with a view to promoting learners' self-study ability, meeting the increasingly high demands of the society, thereby confirming what has been stated in the vision and mission of HCMUTE.

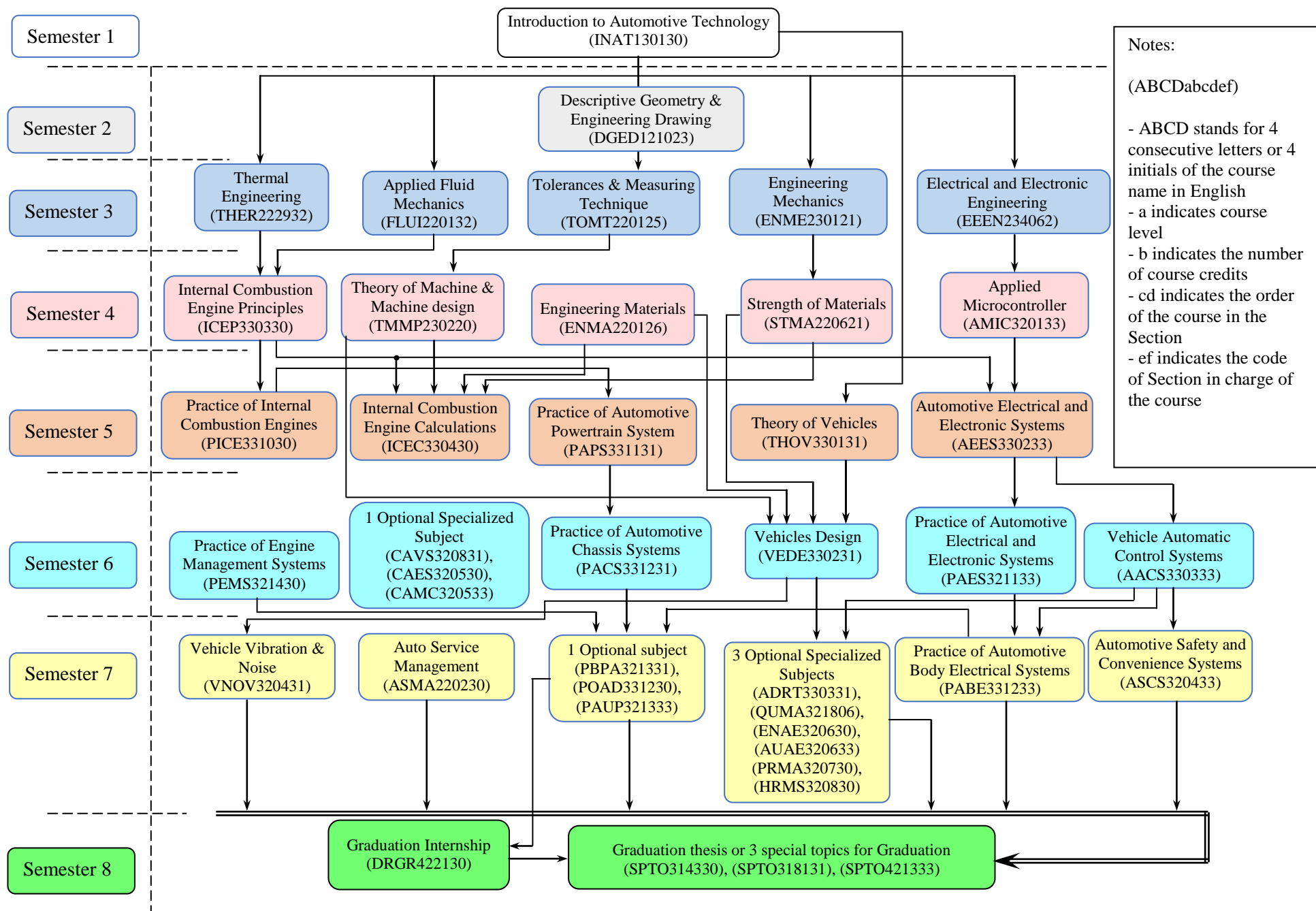


Figure 3.2. Mapping of Automotive Engineering Technology core courses

3.6. The programme clearly shows the basic courses, intermediate courses, specialized courses and the final project, thesis or dissertation

Automotive Engineering Technology programme was issued in 2012 and divided into generic, intermediate and specialized knowledge areas, practice courses, graduation internship, and graduation thesis as shown in Figure 3.2 and Table 3.2 [Exh. 3.6-01]

Table 3.2. Credit distribution for knowledge areas

Content	Number of credits		
	Required (1)	Elective (2)	Total (1)+(2)
I. Generic knowledge	45	11	56
<i>Political theory</i>	12	0	12
<i>Social sciences and humanities</i>	0	6	6
<i>English</i>	9	0	9
<i>Introduction to Automotive Technology</i>	3	0	3
<i>Computing</i>	3	0	3
<i>Mathematics and Natural Sciences</i>	18	5	23
II. Specialised knowledge	81	13	94
<i>Intermediate courses</i>	25	2	27
<i>Specialised courses</i>	26	9	34
<i>Workshop practice courses</i>	18	2	20
<i>Graduation internship</i>	2	0	2
<i>Graduation thesis</i>	10	0	10

This is a great innovation in programme designing, thanks to the feedback from enterprises and alumni. Actually, in the curriculums issued in 2008 and 2010, a large quantity of theoretical courses caused stress to learners and failed to leave them time for self-study. In the 2012 curriculum, a great number of theoretical courses have been integrated and the electives have been added. Therefore, students still gain sufficient amount of knowledge with abundant time for promoting self-study and soft skills, although the total number of credits has been reduced from 228 (2006) to 186 (2010) and to 150 (2012). Besides, practice courses have also been integrated and content repetition in these courses has been avoided. The innovation is also proved through higher GPA, higher graduation rate, the increase in both quantity and quality of students' scientific research [Exh. 3.6-02], [Exh. 3.6-03].

3.7. The programme content is up-to-date

The programme is updated regularly and frequently (especially in 2010 and 2012) [Exh.

3.7-01]. In 2011, Faculty of Vehicle and Energy Engineering started to develop the 150-credit-programme, being suited to the framework of Ministry of Education and Training and the vision of the university [Exh. 3.7-02], [Exh. 3.7-03]. The programme was thoroughly revised in 2012, based on the contributions of the faculty's teaching staff, and feedback from companies and enterprises employing the faculty's graduates. Since then, it has been frequently revised, evaluated, adjusted and supplemented by the faculty's scientific board, teaching staff and stakeholders [Exh. 3.7-04]. The revision has been conducted not only internally but also externally via the feedback of employers and successful alumni who are working at different companies.

4. Teaching and Learning Strategy

4.1. The Faculty has a clear teaching and learning strategy

In accordance with the educational standpoints of the university, namely providing “student-centeredness” and promoting “genuine learning and professionalism,” the faculty has adopted constructivism as our educational philosophy including two main principles:

- 1) The learning process only takes place when learners study actively.
- 2) Learners construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences.

Embracing these two principles, all the academic staff had a discussion and has agreed as follows:

- 1) The teachers' role in the curriculum of the Automotive Engineering Technology Programme is not a presenter but a facilitator, who will provide students with various opportunities to experience things and through that process, guide them to discover knowledge for themselves.
- 2) The students' role is the main subject of the learning process. They study independently through different experiencing activities provided by the teachers or discover the knowledge and construct the intellectual ability for themselves.

The teaching strategy of the teachers in the Automotive Engineering Technology Programme is developing “independent learning” and “reflective learning.” In order to develop these competences, the teaching strategy is implemented with five specific strategies:

- 1) Creating the motivation for students' active learning by arousing their passion in experimenting and discovering things [Exh. 4.1-02].
- 2) Teaching the theory in combination with practice so that students achieve understanding and know how to apply the theory into solving technical problems.
- 3) Providing students with various chances to deeply analyze problems and widen knowledge through the technical problem-solving process from simple to complex levels.
- 4) Coaching students in carrying out four basic phases of the engineering career, namely “Conceive – Design – Implement – Operate,” through which students can acquire knowledge, professional skills, technical argumentation and soft skills [Exh. 4.1-03].
- 5) Triggering and nurturing independent thinking and critical thinking through actions

4.2. The teaching and learning strategy enables students to acquire and use knowledge academically

The curriculum consists of 150 credits in which the total credit hours of mathematics and natural sciences subjects are 24, accounting for 16%; of the foundation courses are 81, accounting for 54% in the concentration of Mechanical- Electronics Engineering Technology orientation. Expected learning outcomes of the programme are specified into specific expected learning outcomes of the courses or subjects from low to high levels [Table 3.1. Correlation Matrix of Learning Outcomes]. The teaching strategies enable students to acquire and use knowledge academically through particular teaching activities as below:

- Lectures: Courses in mathematics and natural sciences are taught in the first year by presentations and demonstrations with real examples so that students will have background knowledge of mathematics and basic sciences to learn foundation knowledge courses, technology fundamental knowledge groups, and specialized contents in the next years as well as for life-long learning.
- Lectures in combination with practice: Subjects belonging to foundation knowledge group are taught in the first two years of the programme. The teaching strategy is to teach theory in combination with practice so as to help students know how to apply knowledge in different situations, from simplicity to complexity, with the guide of the teachers.
- Learning by doing: From the third year, specialized knowledge in the field of automotive engineering technology is developed through specialized subjects by the “learning by doing” method. Students apply their knowledge into solving problems in projects, graduation project and applied scientific research.

4.3. The teaching and learning strategy is student oriented and stimulates quality learning

Most of the classrooms are equipped with overhead projectors, so teachers often apply integrated teaching methods, use PowerPoint presentations and videos. Complex models and technical systematic structures are demonstrated by system-design platforms like LabView, which helps students better understand the technical systems they are learning [Exh. 4.3-01].

Besides, the E/M learning system (website: www.lms.hcmute.edu.vn) helps students access lectures fastest and most effectively as well as interact with teachers and classmates [Exh. 4.3-02]. Apart from well-equipped laboratories and modern facilities, students have a chance to get access to some of the most popular machines and equipments used in the industry [Exh. 4.3-03].

Students are guided and funded to implement scientific research and participate in technical contests such as Robocon [Exh. 4.3-04]. Workshop and professional skill contests are regularly held in order to help students not only better understand different applications of knowledge being learned but also collect new information which is useful for their future learning and working [Exh. 4.3-05]. To increase students’ learning motivation and promote their curiosity about subjects like *Programming common pan problems faced in reality through different teaching models*, some teachers often guide students to participate in related contests such as the Eco-Car contest [Exh. 4.3-06].

Open laboratories established by the Faculty’s lecturers are the places for students to come and study, exchange experience and carry out scientific research as well as graduation research. Some typical products made by students in those open laboratories [Exh. 4.3-07] helped them receive many prizes [Exh. 4.3-08].

4.4. The teaching and learning strategy stimulates action learning and facilitates learning to learn

Learning activities in the curriculum all aim to promote students' "independent study" and "genuine learning and professionalism." Strategies including "action learning" and "learning how to learn" have received the most attention and focus from teachers through various activities such as doing course projects, graduation research and scientific research. Every time students are carrying out their assigned tasks, they regularly receive feedback or questions from teachers. Those things help them follow the framework "identify problems, analyze, evaluate, think systematically and propose solutions, anticipate results, review and try applying new solutions." After applying new solutions, students continue to receive feedback or questions. The series of actions takes place in circle again and again with more and more complex and higher level of requirements. This helps students gradually have the "habit" and the ability of "feedback analysis." The ability of "independent thinking" and "learning from experience" will help students improve learning quality at university and after graduation, they will be able to successfully solve real professional problems as well as effectively acquire life-long learning.

With regards to the teachers, during the teaching process, they also implement reflective teaching through the series of actions named "teach, analyze, evaluate and innovate." This is done in a circle again and again with the aim of increasing the quality of teaching day by day. Reflective teaching is carried out with the support from colleagues through classroom observations and experience-sharing activities [Exh. 4.1-01]. Another valuable source of information is the result of the survey which explores students' opinions towards teachers' teaching when the courses have finished [Exh. 4.1-02].

5. Student Assessment

When starting to build up the framework of the Automotive Engineering Technology Programme in 2001, the university leaders were especially concerned about innovating teaching methods along with testing and assessing methods. Particular regulations were specifically laid down regarding admission regulations, formats of testing and assessment as well as final examinations for all types of mainstream and in-service training programmes, such as constructed-response tests, oral tests, multiple choice tests, practical tests, presentations, and so on.

5.1. Student assessment covers student entrance, student progress and exit tests

Student assessment is to ensure the quality of graduates of the programme. Specific steps of the assessment process include three phases: entrance, progress and exit.

Entrance Exam

The entrance test is carried out annually in the early July as regulated by the Ministry of Education and Training (MOET). New students will be those who have passed this entrance exam with some compulsory subjects depending on their own major. With regards to the Automotive Engineering Technology Programme, the subjects in group A include Mathematics, Physics and Chemistry [Exh. 5.1-01], [Exh. 5.1-02]. Each programme will have different standard entrance grades depending on the admission targets approved by the MOET [Exh. 5.1-03], [Exh. 5.1-04], [Exh. 5.1-05], [Exh. 5.1-06], [Exh. 5.1-07]. Specifically, the admission targets of the Automotive Engineering Technology Programme in the last five years are shown on Table 5.1.

Table 5.1. Admission targets of the AET Programme in the last five years

Academic Year	2011-2102	2012-2013	2013-2014	2014-2015	2015-2016
Number of candidate	764	845	897	1064	1230
Number of admission	230	280	330	362	360

Freshmen will have to sit for an English placement test at the beginning of the school year. If any of them do not meet the standard of English level, they will have to attend some extra classes to improve their language competences in order to meet the programme's requirements for a foreign language [Exh. 5.1-08], [Exh. 5.1-09].

Formative Assessment

Student assessment is one of the most important elements of higher education in ensuring the quality of graduates through each course as well as the whole training programme. The process is carried out in all courses in different forms: constructed-response tests, oral tests, multiple choice tests, presentations, exercises, and so forth. The testing and assessment contents need to correspond to the syllabus of the particular course in order to satisfy the learning outcomes of the whole programme step by step [Exh. 5.1-10]. Besides, students have to go through an internship period and do the capstones project to fulfill the graduation conditions. This is a chance for teachers to test and evaluate student competences and ability in applying professional knowledge into solving real problems [Exh. 5.1-11].

The formative assessment is done in many times and with many methods, which are often a combination of exercises, group presentations and tests. Therefore, students need to act and learn actively so as to meet the requirements for this part of grading. The university also requires teachers to inform their students about the formative assessment results one week right after the date of each test. Thanks to this, students have a great chance to look back on their learning process and teachers can reflect on their teaching methods to make appropriate adaptations right during the teaching process. Reality shows that with the application of the new academic programme with new testing and assessment methods, students of recent courses are more active and show higher learning quality than former ones.

Summative Assessment

In order to complete the programme, students majored in Automotive Engineering Technology have to accumulate 185 credits including 175 course credits and 10 of the graduation research paper if they are students enrolling on the programme before 2012. From 2012, with the application of the 150-credit programme, students have to complete 140 course credits and 10 graduation research paper credits in which they will have to participate in the internship graduation period to accumulate more real experience in businesses for future work after graduation [Exh. 5.1-12].

The graduation project is done in the final semester of the programme after students have accumulated enough required credits. The project content needs to correspond to what students have learned and students in charge will have to defend their theses in front of the academic board appointed by the Faculty's Section [Exh. 5.1-14].

The board will evaluate and assess the theses depending on the students' knowledge showed in the projects, ability in applying flexibly and creatively what they have learned into reality, and other soft skills [Exh. 5.1-15],[Exh. 5.1-16].

5.2. The assessment is criterion-referenced

The system of testing and assessing learning results of the Automotive Engineering Technology Programme has explicit criteria. Each lecturer and student know exactly the testing and assessment methods and forms of the particular courses they are involved in. If there is anything unclear, teachers can get access to the documents rather easily because all the curriculum and learning outcomes have been sent to every teacher by the Faculty's section. Students can make a reference to the curriculum in the students' handbook or on the faculty's website. In the first day of the course, teachers are responsible for informing students about the contents of the curriculum, course learning outcomes, testing and assessment methods [Exh. 5.2-01].

The grading scale to assess student learning results in all courses and project courses are explicitly regulated both in syllabi and in teaching portfolios of each subject of the 150-credit programme [Exh. 5.2-02], [Exh. 5.2-03].

At the beginning of the semester, the academic staff in charge of each course will discuss and agree on testing and assessment methods and those agreements are recorded in that course syllabus. Depending on typical contents and characteristics of each subject, the assessment methods are criterion-referenced as follows:

Table 5.2. Criteria for assessing student study results

Items	Criteria	Formative assessment	Summative assessment
Ethics	<ul style="list-style-type: none"> - Student discipline and manners - Student ethics - Student responsibility 	✓ ✓ ✓	✓
Knowledge	<ul style="list-style-type: none"> - Homework - Experiment or practice results - Multiple-choice knowledge-tested questions - Presentations/ exercises - Exams 	✓ ✓ ✓ ✓ ✓	✓ ✓
Intellectual skills	<ul style="list-style-type: none"> - Collecting, analyzing and making decisions - Analyzing and solving calculative problems - Applying knowledge into reality - Using tools to calculate and solve technical problems 	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓

Personal skills and responsibility	- Ability to adapt and work in groups, leadership	✓	
	- Responsibility in group work, discussions and presentations	✓	

5.3. Student assessment uses a variety of methods

In order to obtain precise assessment results of the process of knowledge and skills learning and acquisition, our section always require each lecturer to employ different assessing methods and clearly show in the specific course syllabus or teaching portfolio [Exh. 5.3-01]. Specifically, those assessing methods can be:

- Regular class attendance, participation in discussions, in-class task completion
- Homework and project completion
- Participation in group activities
- Pass in mid-term and end-of-term tests

Besides theoretical and practical courses, students have to complete the graduation project in order to finish the whole training programme. This project aims to evaluate students' ability to apply knowledge into reality. Students have to defend their project in front of the academic board appointed by the faculty's section along with other stakeholders such as lecturers from related sections or businesses [Exh. 5.3-02]

Apart from learning activities, students are also assessed through social activities, activities in the Youth Union and Student Union as well as community services. The Admissions and Student Affairs Office evaluates students' service scores basing on their activities in each semester [Exh. 5.3-03]. In order to encourage students to actively participate in those activities, the service scores are an important criterion in examining and deciding scholarships after each semester as well as considering graduation conditions later [Exh. 5.3-04].

5.4. Student assessment reflects the expected learning outcomes and the content of the programme

Course learning outcomes must correspond to the curriculum learning outcomes. The contents of each chapter, exercises and tests need to satisfy and be in line with the respective learning outcomes [Exh. 5.4-01].

Besides requirements for specialty, students have to fulfill some requirements for soft skills, English language, ethics and learning attitudes. In case students are absent from class with more periods than regulated, they will be prohibited from sitting for the final exam of that subject. Moreover, when entering the laboratory, students have to comply with all the rules and regulations of the room [Exh. 5.4-02]. Soft skills can also be assessed through students' ability in independent work and group work. Regarding courses that require students' presentations, they will be assessed in terms of group presentation and presentation skills [Exh. 5.4-03].

5.5. The criteria for assessment are explicit and well-known

On the first day of the course, teachers are responsible for informing explicitly the course syllabus, objectives and learning outcomes, and relevant testing and assessment forms, proportion of tests (mid-term, final), in-class exercises, homework, presentations, and so on. These contents should be easy to be referred to by being included in students' handbook or

posted on the website of the Academic Affairs Office.

Since 2012, the training programmes in general and the Automotive Engineering Technology Programme in particular have been built up. The contents of the programme highly appreciate self-study ability and students' participation in learning activities. As a consequence, the proportion of the on-going assessment has been increased from 20%-30% to 50% [Exh. 5.5-01], [Exh. 5.5-02].

Regarding courses which require presentations, students are divided into groups of 3 or 4 and make their group presentations. Each group has to examine and do research into their assigned topic. Then, they will design a PowerPoint presentation to present their work in front of the teacher and the whole class. The rubric for evaluating students' presentations is also specifically designed [Exh. 5.5-03].

5.6. The assessment methods cover the objectives of the curriculum

Currently lecturers are all required to prepare their own teaching portfolios for the courses they are in charge of. The portfolio needs to clearly show specific kinds of exercises in each chapter; testing and assessment methods and all of them should correspond to the relevant course learning outcomes as well as curriculum learning outcomes [Exh. 5.6-01]. From that base, teachers can prepare the same types of questions for mid-term and final tests which are also in accordance with those learning outcomes [Exh. 5.6-02]. For example, in the course "Principles of Internal Combustion Engine," being authorized by the section head, the leader of the teacher group who are teaching this subject will organize a meeting with other related teachers. They will discuss and agree on the testing contents in line with the curriculum learning outcomes, and assign specifically the person who will design the test. After this test is approved by the whole group, it will be sent to the section head for final review [Exh. 5.6-03].

5.7. The standards applied in the assessment are explicit and consistent

The curriculum is described clearly and specifically in the students' handbook which is given free of charge to every student in the first semester of the whole course. Syllabi as well as course testing and assessment methods are also directly informed by teachers in the first lesson of each subject. Tests and keys are made known to students after the test date on the faculty's website or the section's notice board [Exh. 5.7-01].

Right after the students have finished their final exams, teachers have a week for grading. Test results will be available for students on the university's website, under the menu "online sign in for students." Students also have one week to check their grades and if there is any dissatisfaction with the grades, they can ask for a re-examination of their papers. To ensure the objectiveness and fairness, those papers need to be re-examined by another teacher in the section who is also in charge of teaching the subject. After checking the examination papers, the final results will be announced and re-informed to the related students [Exh. 5.7-02].

In order to graduate from university, each student has to accumulate enough credits of the programme and has the average accumulated grade of over 5.0; besides, students have to satisfy the requirements for a foreign language and for social activities [Exh. 5.7-03]. The Academic Affairs Office will base on the students' average accumulated grade to classify their graduation results according to current regulations [Exh. 5.7-04].

6. Academic Staff Quality

6.1. The staffs are competent for their tasks

The faculty's full-time academic staff includes 39 lecturers, including 03 Associate Professor, 11 Doctors and 25 Masters. There are 08 senior lecturers in total. Currently, there are 10 lecturers who are either PhD students (both in Vietnam and abroad) or overseas graduates. Lecturers who are in charge of teaching in the Automotive Engineering Technology Programme are all competent and well-qualified for their duties [Exh. 6.1-01].

The faculty's full-time academic staff was recruited according to explicit competence criteria [Exh. 6.1-02] and a same recruitment process in the whole university [Exh. 6.1-03]. The process and criteria for recruiting and appointing lecturers have been changed and adjusted in line with the changes in documents released by the national administrative agencies [Exh. 6.1-04].

After being recruited, all teachers will participate in refresher courses, training courses and workshops on adjusting the curriculum, teaching and assessment methods in line with the curriculum's educational viewpoints in both long-term and short-term training programmes [Exh. 6.1-05]. Besides teaching, another focused duty that all lecturers need to fulfill is promoting professional development (or technical expertise) [Exh. 6.1-06]. This duty needs to be performed with detailed plans, and results should be reported individually and annually [Exh. 6.1-07].

6.2. The staffs are sufficient to deliver the curriculum adequately

Our faculty has enough lecturers to be in charge of teaching in the Automotive Engineering Technology Programme. Every year, basing on the workloads, current number of lecturers, number of lecturers who are studying inside the country or abroad, the faculty's management board suggests recruiting more lecturers in each semester (number, academic title, specific academic requirements clarified in the forms provided by the Human Resources Management Office) [Exh. 6.2-01]. The recruitment plan is approved by the university president and then, number and recruitment criteria will be made well-known on the university's website and other social media [Exh. 6.2-02]. Candidates are tested in different forms, including an IQ test, English test, informatics test and have to go through two interviews, one with the university executive board and the other with the faculty management board, to examine professional and pedagogical competences.

The university has a preferential and efficient policy to attract doctoral lecturers and different strategies to develop the faculty's personnel are firmly focused; therefore, our faculty is not short of lecturers with Master or Doctor Titles [Exh. 6.2-03].

Table 6.1. Total number of teaching staff

	Male	Female	Total		Percentage of PhDs
			Number of staff	FTE	
Associate / assistant Professors	3		3	2.5	100%

Full time lecturers (Automotive engineering technology)	36		36	36	30.5%
Full time lecturers (non Automotive engineering technology)	25	2	27	17.5	
Visiting Professors/ lecturers	7	0	3	2.5	
Total	57	2	59	58.5	
* FTE stands for Full-Time Equivalent. This is a unit to calculate the investment of time. 1 FTE is equaled to about 10-12 teaching and consulting hours per week (full-time employment). A staff member with a weekly appointment of 5-6 teaching and consulting hours is per week 0.5 FTE.					

Table 6.2. FTE Ratio of teaching staff to number of students

No. year	Total FTE of teaching staff*	Number of students	Number of graduates	Number of students per FTE of teaching staff	Number of graduates per FTE of teaching staff
2015	58.5	1320	188	22.6	3.21
2014	51	1177	130	23.1	2.55
2013	39.8	977	125	24.5	3.14
2012	35	794	122	22.7	3.49
2011	31.5	653	125	20.7	3.97

(Number of students is calculated as accumulation of 4 successive intakes minus the total drop-out number and plus the number of students who is delayed in graduation from previous intakes)

6.3. Recruitment and promotion are based on academic merits

After recruitment, all teaching staff needs to go through a probation period which lasts 12 months, during which they have to fulfill their duties as guided by an experienced and highly qualified lecturer [Exh. 6.3-01]. When this period ends, the section will make comments on their activities during the probation time [Exh. 6.3-02]. Basing on these comments, the faculty and university will issue necessary decisions to admit the termination of the teaching staff's probation period [Exh. 6.3-03].

Designation, promotion and salary raises are carried out in accordance with the process and regulations of the MOET, of related agencies and are made public on the university's website, under the menu of Subordinate Units, Offices, the Human Resources Management Office [Exh. 6.3-04], [Exh. 6.3-05].

According to the level of work completed, the section will organize evaluating and voting meetings every year in order to identify the best individuals for the title of Emulators [Exh. 6.3-

06]. Those individuals will be commended and awarded [Exh 6.3-07] and will be considered for a salary raise ahead of time [Exh. 6.3-08]. The University has a strategic plan in which support academic staff planning was carried out and each year, each department require the new recruitment and staff development [Exh. 6.3-09].

6.4. The roles and relationship of staff members are well defined and understood

HCMC University of Technology and Education has issued specific documents defining the functions, roles and responsibilities of all academic staff [Exh. 6.4-01]. Any candidates for any positions as well as all academic staff have to know exactly those different regulations and pass an examination in which there is a part checking test-takers' memory of those regulations in order to become an official member of the university. In each subordinate unit of the university, the map of administration is made public and displays the titles, duties and functions of each staff member and personnel [Exh. 6.4-02].

The leaders of the faculty's management board are the Dean and three Vice Deans. The Dean is responsible for all of the faculty's general activities and is also the representative of the whole faculty in diplomatic events. Three Vice Deans are in charge of three different fields, including scientific research, teaching-training and facilities. There is also one secretary who assists in the faculty's administration and management [Exh. 6.4-03].

The organizing framework of the faculty is divided into 4 sections, namely Automotive Engine Section, Automotive Chassis Section, Automotive Electricity Section, and Thermotechnics and Refrigeration Section. There is one Section Head and one Deputy Head who are responsible for managing and orienting activities and supervising professional activities of their own section.

Duties and authority of each management staff are regulated explicitly in documents approved by their direct supervisors [Exh. 6.4-04]. All sections are concerned about sharing academic knowledge and teaching methods. Associate professors, doctors and experienced lecturers are assigned to give guidance to young colleagues in order to share valuable experience in teaching and doing scientific research that they have gained after many years of teaching and doing research [Exh. 6.4-05].

6.5. Duties allocated are appropriate to qualifications, experience and skills

Lecturers are arranged to teach according to their majors. There are at least two lecturers who have appropriate professional knowledge and are in charge of each subject [Exh. 6.5-01].

Theoretical subjects are assigned to lecturers with a doctoral or master degree. Practical subjects are given to experienced lecturers who have high vocational skills [Exh. 6.5-02].

Besides teaching and doing scientific research, another common work of lecturers is taking part in editing the curriculum, writing or compiling textbooks and improving lesson plans. These are considered as frequent duties that are brought into emulation targets and the annual evaluation of workload completion level [Exh. 6.5-03].

So as to assist teachers in preparing lessons, tutoring students, guiding students to conduct experiments and to practice, and grading papers; there has been a group of teaching assistants managed by the university with specific regulations on their responsibilities and interests as well as those concerning how lecturers have teaching assistants aid them with their work [Exh. 6.5-04].

6.6. Staff workload and incentive systems are designed to support the quality of teaching and learning

Teaching workloads are distributed in accordance with the regulations issued by the MOET in order to avoid too heavy workloads. According to MOET's regulations, the annual standard number of periods per lecturer and senior lecturer are 280 periods and 320 periods respectively.

Every year, the real workloads are reckoned up (including teaching, scientific research, articles published on magazines, textbook writing, service activities) in order to clarify each individual's workloads in each subordinate unit in the university for the basis of later possible recruitment [Exh. 6.6-01].

Lecturers are assessed on different basis as below:

- A report on personal working achievements [Exh. 6.6-02]
- Faculty's evaluation of the lecturer [Exh. 6.6-03]
- Students' evaluation of the lecturer after competing courses [Exh. 6.6-04]

The evaluation on lecturers' level of work completion with different working positions and duties is carried out through KPIs system [Exh. 6.6-05]. There are working descriptions of each title, which specifically clarify related responsibilities. Depending on those working responsibilities, administrators will release target indices to evaluate the working efficiency of that title [Exh. 6.6-06].

6.7. Accountability of the staff members is well regulated

Each teacher's accountability is specifically regulated on the university's documents, which are also in accordance with those of the MOET [Exh. 6.7-01]. Each teacher's workloads at their own position and title with different duties such as teaching, scientific research, management, etc. are also clarified in those regulations [Exh. 6.7-02]. Different management boards at different levels are in charge of checking the progress and results of implementing these duties [Exh. 6.7-03]; this is the base for assessment and classification for rewarding excellent individuals and units [Exh. 6.7-04].

At the end of each semester, lecturers have to report their results and workloads. At the end of the academic year, they have to write a report to summarize all work that they have done (in terms of philosophical and political attitudes, ethics, professionalism, scientific research, personal development, etc.). Every year, lecturers' teaching competences are assessed with an explicit process and criteria which are in line with the regulations. Specifically, teaching activities are assessed through class observation forms (comments of colleagues) and questionnaires about teaching activities. Moreover, lecturers' level of English is also tested and classified annually by the university [Exh. 6.7-05]. The section head and faculty's dean make comments on each lecturer's performance [Exh. 6.7-06]. The assessment results are the basis to implement rewarding activities (ranking employees in order of hierarchy like Satisfactory Staff, Excellent Staff of different levels, etc.), training activities (improving foreign language competences through training courses organized by the university, or training a foreign language overseas), promoting personal development, and raising employees' salaries in advance [Exh. 6.7-07].

There are specific regulations on teaching preparation and implementation for lecturers who are in charge of teaching courses in the programme [Exh. 6.7-08]. Each lecturer has to prepare a teaching portfolio [Exh. 6.7-09] in which they have to clearly show the correspondence between course ELOs and programme ELOs, course contents, teaching methods, teaching plans and testing and assessment. Finally, lecturers have to write a report on their teaching at the end of the semester and submit to the faculty when the course ends [Exh. 6.7-10]. All kinds of teaching portfolios are brought into discussion to ensure the consistency of teaching as oriented by the curriculum with assessing students for the ultimate goal of helping students achieve the curriculum's learning outcomes. The consistency of the assessment methods with course ELOs is demonstrated in the Correlation Matrix [Exh. 6.7-11].

Faculty of Vehicle and Energy Engineering always advocates innovating teaching methods, evaluating periodically and efficiently lecturers' teaching methods, learning from experience and applying modern teaching methods. There have been many training courses provided by our university with the aim of promoting self-study ability, self-research and team work scientifically and efficiently [Exh. 6.7-12]. In-class teaching is carried out with the application of modern means of information technology such as Power Point lectures, automobile system simulation software, learning materials uploaded on E-learning website [Exh. 6.7-13].

Each lecturer gives feedback frequently during the teaching and learning process through a chain of activities known as "teach, analyze, assess and innovate," which is done in different cycles with the aim of improving teaching efficiency day by day. Feedback activities are done with the support from colleagues through class observations to observe and share experience with each other [Exh. 6.7-14].

These activities are done with specific plans [Exh. 6.7-15] and follow an agreed process in the whole university [Exh. 6.7-16]. Another essential source of information for lecturers is the result of the student questionnaire on evaluating teachers after the course ends [Exh. 6.7-17].

6.8. There are provisions for review, consultation and redeployment

Redeployment is done according to plans. Personnel for administrative and managing positions is often planned and prepared in accordance with particular period of time [Exh. 6.8-01]. Subordinate units in the university often have their own strategic plans in which demands, development orientation and personnel planning are also described and clarified [Exh. 6.8-02].

6.9. Termination and retirement are planned and well implemented

According to the MOET's regulation on working rules [Exh. 6.9-01] and the government's decree on the procedure for lecturers' retirement [Exh. 6.9-02], the ages of retirement of male and female staff are 55 and 60 respectively. In case the office has a demand and the lecturer is still enthusiastic about devoting for teaching career, doctoral lecturers are invited to extend their working time for 5 more years. Professors and associate professors are invited to continue their work in 7 more years [Exh. 6.9-03]. When retiring, former staff of the university receive special interests from the university [Exh. 6.9-04], [Exh. 6.9-05] besides their pension and other subsidies as regulated in the Labor Code and Social Insurance Law.

In case of resignation, the staff needs to submit a letter of resignation to the Human Resources Management Office at least 3 months before ending the tenure of office and clarify

the reasons for resigning from the position. On the other hand, the school also has the right to end the contract with lecturers due to some certain reasons such as staff's inability to satisfy working demands or making serious mistakes, and this also has to be informed to employees 3 months in advance [Exh. 6.9-06].

6.10. There is an efficient appraisal system

At the end of each school-year, each individual in the faculty will write a report on their working results during the year, and it should base on the section's report and voting result. The faculty' emulating and awarding board will process the staff assessment and vote for staff emulation and awarding for each academic year [Exh. 6.10-01]. The university's emulating and awarding board will then take all recommendations from the faculty into consideration and announce the official decisions afterwards. Annual emulation awards include "Excellent Staff" at three levels, namely institution, ministry and government. Each staff needs to meet some certain requirements in order to be considered for these awards [Exh. 6.10-02], mainly having high working achievements, being chosen by the university's emulating and awarding board, having scientific research published on academic magazines or presented at conferences or workshops, making no mistakes at work during the year as well as attending all academic meetings and professional development workshops held by the university and the faculty.

Normally, every staff will have a salary rise after three uninterrupted working years. However, staff with outstanding achievements and contribution can have their salary raised in advance [Exh. 6.10-03]. According to the government's current regulation, staff can register for consideration for higher emulation titles such as Government's Certificate of Merit, the Labour Medals (First, Second or Third Class by the State), and other noble titles such as Meritorious Teacher or People's Teacher. These titles are only given to individuals and groups who have deserving achievements [Exh. 6.10-04].

7. Support Staff Quality

Currently, the university and faculty have released regulations and policies to develop the support staff. Those staffs are responsible for supporting and serving teaching and learning processes, including library staff, computer facility staff, laboratory and workshop staff. Besides, there is the student services staff who are categorized as professional learning advisors belonging to faculties' academic majors and university' departments. For example, the advisory group in charge of advising students on rules and regulations belongs to the Academic Affairs Office; the one in charge of giving advice on academic matters and scientific research belongs to the related faculty; the one informing students about supports and policies belongs to the Admissions and Student Affairs Office; the group giving advice on students' psychology belongs to the Student Services Center [Exh. 7.0-01]. The University has a strategic plan in which support staff planning was carried out and each year, each department and office require the new recruitment and staff development [Exh 7.0-02].

7.1. The library staff is competent and adequate in providing a satisfactory level of service

In order to give support to the training process, the library management board have built up and developed a library staff of high quality. The university's and faculty's library staff was chosen with the right number and appropriate specialized degrees. Currently, there is a library in the university to serve students with the total number of 19 staff in which those under 40 account

for a high percentage of 84.2%. All the library staff received formal training. 10% of them received master degrees; 47.3% were qualified with B.A. degrees; and 37% are college graduates. In terms of academic competences, there has been 84.2% of the library staff trained in information-library expertise. Besides, with the demand of IT application into libraries, there is also one staff in charge of IT to handle real situations and meet demands of the student training and serving jobs [Exh. 7.1-01].

Table 7.1. Total number of library staff

		Total number of staff (Total: 19)
Qualification	Master	2
	B.A	9
	College Graduate	7
	Vocational School Graduate	1
Major	Library	16
	Information Technology	1
	Others	2
Positions	Librarian	8
	Technical Staff	8
	Administrative Staff	3

The workload management inside the library is done properly and in line with functions and duties [Exh. 7.1-02]. All the staff's roles and duties are allocated appropriately and scientifically so that each individual's competences are promoted and all tasks are tightly connected with the library's development strategies. With the aim of increasing continuously the quality of services, meeting the university's training demands and the library's requirements for development in the future, the library has drawn up the staff developing plan for the 2013-2018 period and orientation towards 2020 [Exh. 7.1-03]. With regards to individuals in the library, every year, each staff makes a plan of working and self-studying for professional development in order to highly satisfy the university's training needs [Exh. 7.1-04].

Moreover, the library often organizes academic training courses and seminars in order to provide their own staff and staff from other libraries in the region with an opportunity to approach new aspects of the academic field, which contributes to increase the service quality of each library and indirectly increase the education quality [Exh. 7.1-05]. To improve the operating efficiency, the library plans to conduct surveys exploring users' needs of materials and evaluation of the library's service quality once every two years [Exh. 7.1-06].

Students can get access to the library's online service with an abundant supply of e-books and learning materials [Exh. 7.1-07] and enough staff to aid them to look for materials quickly. The library is open from 07:00 to 16:30, Mondays to Fridays during the whole semesters of every school-year. A few weeks before the exam and during exam time, the library opens till 9PM. The library staff is always online at <https://www.facebook.com/hcmute.lib?fref=ts> [Exh. 7.1-08] to give direct advice and support when necessary.

7.2. The laboratory and workshop staffs are competent and adequate in providing a satisfactory level of service

The laboratory staff plays an essential role in providing good services for students' learning and doing scientific research to ensure the curriculum's learning outcomes. Currently, the Faculty of Vehicle and Energy Engineering has three laboratories and four academic workshops with a total number of seven staff who are specialised in the academic majors. Moreover, there are many other staff members working in material experimenting laboratories and benchwork practices of other faculties. They are also involved in the academic programme [Exh. 7.2-01].

Table 7.2. Laboratory and workshop staff

No	Laboratories and workshops	Person in charge	Qualification
1	Automotive Engine Laboratory	Châu Quang Hải	Master
2	Automotive Mechatronic Laboratory	Lê Quang Vũ	Master
3	Automotive Chassis and Brake Laboratory	Dương Tuấn Tùng	Master
4	Automotive Engine Practices Workshop	Nguyễn Tấn Lộc	Engineer
5	Automotive Chassis Practices Workshop	Dương Tuấn Tùng	Master
6	Automotive Electricity Practices Workshop	Lê Quang Vũ	Master
7	Automotive Body and Painting Practices Workshop	Dương Tuấn Tùng	Master

7.3. The computer facility staff are competent and adequate in providing a satisfactory level of service

The computer administrators at the Computer and Network Center were chosen to work in different specialized fields, including internet administrators, technical support specialists, school website administrators, center secretaries and internet-computer-telephone problem-solving staff. The center performs duties related to information technology in the university such as maintenance, software and facility installation as well as regular maintenance of office computers, personal computers, networks, university's and subordinate units' websites [Exh. 7.3-01]. Currently, the center has 8 staff, including 1 Head of the center, 1 Vice Head, 3 Specialists and 3 Technicians.

Other duties include establishing and installing in laboratories the computer systems and facilities that are appropriate with the needs of each class both in the university and in each faculty to be in line with the practice - experiment leaning programme. The center ensures that the whole system runs smoothly with the highest level of quality and convenience for all teaching staff and students. Another important duty is to develop the university's as well as all faculties' websites. Website administrators have to regularly update latest information to the site such as news, student scholarship announcements, research sponsoring announcements, technical issues and other related news or activities. The center staff can serve and manage an online services system for lecturers, university staff and students, such as the online student training

system or online teaching and learning material system. Every year, in order to increase the service quality after each semester, the QAO distributes questionnaires to evaluate the satisfaction levels of the university staff, lecturers and students in terms of the service quality of different systems managed by the center [Exh. 7.3-02].

7.4. The student services staff are competent and adequate in providing a satisfactory level of service

With the aim of answering students' questions and giving advice the most effectively and promptly, the faculty and related departments have established advisory groups to support students in learning, scientific research, vocational guidance and learning consultation. The faculty's advisory group in charge of academic study and scientific research consists of 5 members that also include lecturers and service staff.

The advisory team is responsible for answering questions and guiding students understand and comply with the MOET training statutes. A group of 4 members are in charge of giving advice on the university's training regulations concerning course registration, timetables, examinations, unit debt checking, graduation consideration, and degree and certificate rewards. They are experienced staff from the Academic Affairs Office.

Table 7.3. Name list and duties of AAO's advisory team

No	Full name	Advisory content	Email
1	Phạm Thị Thu Sương	Team leader	suongptt@hcmute.edu.vn
2	Phan Vũ Thanh Thảo	Study affairs, Tuition fees	thaopvt@hcmute.edu.vn
3	Trần Thị Hoa	Course registration, application forms	hoatrth@hcmute.edu.vn
4	Nguyễn Thị Thanh Phượng	Diplomas, certificates	phuongntt@hcmute.edu.vn

The advisory group includes staff from the Admissions And Student Affairs Office taking charge of student affairs, school incentive policies on students and student admission.

Table 7.4. Name list and duties of ASAO's advisory team

No	Full name	Advisory content	Email
1	Nguyễn Anh Đức	Team leader	ducna@hcmute.edu.vn
2	Nguyễn Phương Thúy	Files, preferential policies	phuongthuy@hcmute.edu.vn
3	Đặng Hữu Khanh	Student admission, student affairs, student rewards and discipline	huukhanhch@hcmute.edu.vn
4	Lê Quang Bình	Communist Youth Union and Student	quangbinh@hcmute.edu.vn

		Union activities, social activities, service scores	
--	--	---	--

Besides, there are aids from the staff of the Student Services Center in order to promptly answer questions about student psychology, student life, and career and job consultation.

Table 7.5. Name list and duties of SSC's advisory team

No	Full name	Advisory content	Email
1	Nguyễn Thị Thanh Nga	Team leader	thanhnga@hcmute.edu.vn
2	Nguyễn Thị Thủy	Student Affairs	thuy.nguyenthi@hcmute.edu.vn
3	Hoàng Thị Thu Hiền	Student Affairs	hienhtt@hcmute.edu.vn
4	Nguyễn Thị Mỹ Toàn	Student Affairs	toannguyen778800@gmail.com
5	Lê Tiến Sĩ	Student Affairs	ledrsi@gmail.com
6	Hồ Đức Lợi	Student Affairs	hoducloispkt@gmail.com
7	Nguyễn Đình Minh Thu	Student Affairs	13148057@student.hcmute.edu.vn

All staff in the student advisory teams have degrees and specialty related to supporting fields and are carefully chosen by the university and faculty. In order to ensure the quality and improve the competences of office staff, the university carries out surveys to explore staff's and students' levels of satisfaction with the support staff [Exh. 7.4-01]. Simultaneously, there have been plans to develop and increase the quality of staff in each subordinate unit in the university.

8. Student Quality

8.1. There is a clear student intake policy

The student intake policy of HCMC University of Technology and Education is based on the *MOET's student intake policy applied to universities and colleges* [Exh. 8.1-01]. The faculty's policy also relies on the MOET's policy in order to ensure the quality of the entering students and the general quality across the whole country. The annual target number of enrolled students is agreed and announced on the MOET's website for all universities and colleges, for both mainstream and in-service training programmes [Exh. 8.1-02].

The Automotive Engineering Technology Programme admits students basing on their results of the Group A, including three subjects named Mathematics, Physics and Chemistry as regulated by the MOET. The standard intake score of the programme is always the same or higher than the reference score as regulated for different examining score groups respectively by the MOET. A summary of the programme's standard intake scores as students' first choice in the last 3 academic years is shown as follows:

Table 8.1. AET Programme's standard intake scores in the last 3 academic years

Academic year	2012-2013	2013-2014	2014-2015	2015-2016
Group A scores	15.50	19.00	20.00	32.5
Group A1 scores	15.00	19.00	20.00	32.5 ^(*)

(*): in 2015 intake, Mathematic score was mulplied by a factor of 2.

Related sources of evidence: [Exh. 8.1-03], [Exh. 8.1-04], [Exh. 8.1-05].

With the aim of attracting many students and improving the quality of the entering students, the university has implemented many plans and adopted many methods such as distributing leaflets about the university and the training programmes, popularizing the programme to learners and businesses through student handbooks, websites, open days, career consultation days [Exh. 8.1-06]. Going side by side with the university, the faculty also develop different ways to attract learners such as using posters and leaflets [Exh. 8.1-07], organizing open days to introduce to high school students the faculty's conditions, facilities, outstanding activities of current students [Exh. 8.1-08], encouraging students to attend exchanging and recruitment meetings as a way to advertise the programme and increase businesses' rate of recruiting graduates of the programme [Exh. 8.1-09].

The total number of students enrolled in the programme in the last five academic years has been risen as shown in the table below. The demands towards the programme for socio-economic development in general and that of the industry in particular is huge; consequently, the training demands of the Automotive Engineering Technology Programme have also increased annually. Some related sources of evidence include [Exh. 8.1-10], [Exh. 8.1-11], [Exh. 8.1-12], [Exh. 8.1-13], [Exh. 8.1-14].

Table 8.2. Annual application of Automotive Engineering Technology

Academic year	Number of candidates (full-time)			Number of admission
	Male	Female	Total	
2015-2016	(*)	(*)		360
2014 -2015	1165	12	1177	362
2013 -2014	970	7	977	330
2012 -2013	791	3	794	280
2011 - 2012	651	2	653	230

(*) in 2015-2016 intake, high school students only applied to a certain university when he/she knew his/her score and benchmarked with the number of competitors currently applied for a programme.

The summaries of the Automotive Engineering Technology Programme's standard intake scores and the intake of students in the last 5 academic years show that the quality of the entering students has been higher than that of the previous years and the intake of students has been higher, too. This confirms the training quality of the programme, which meets the demands of the labor market and the society.

8.2. The student admission process is adequate

The faculty's student admission process takes place in accordance with the university's [Exh. 8.2-01]. Each student's examination grades are posted on the university website. Students receive letters including score transcripts and the admission results during the announced time. The admission process and registration procedure for new students are fully explained and made public on the university website [Exh. 8.2-02].

During the first week of the new academic year, the faculty along with lecturers and senior students hold a ceremony to welcome new students and introduce to them the faculty's history, facilities, personnel, academic programme, etc. and necessary student support addresses for their possible needs during the time at university [Exh. 8.2-03], [Exh. 8.2-04], [Exh. 8.2-05], [Exh. 8.2-06], [Exh. 8.2-07].

8.3. The actual study load is in line with the prescribed load

The study load management has been carried out since 2007 in accordance with the credit regulations [Exh. 8.3-01]. In order to complete the Automotive Engineering Technology Programme, each student has to obtain 230 credits [Exh. 8.3-02] or students' handbooks [Exh. 8.3-03]. These documents also cover the regulations concerning the order of accumulated subjects and the minimum number of credits for an average student in each semester is 15 and maximum number is 35 [Exh. 8.3-04].

With regard to students from the academic year 2012, the total number of credits of the Automotive Engineering Technology Programme is 150. The study load is designed basing on real needs of the academic programme and the system's regulations on number of credits. In order to attend one hour in class, a student has to do self-study at home before the lesson and then prepare materials and do homework [Exh. 8.3-05]. Accordingly, the programme designers have allocated student study load appropriately and does research into the balance of study load every semester [Exh. 8.3-06]. If students have any difficulties in learning, for example fulfilling the requirements of credits in a semester, the faculty's advisory group will give them advice on suitable learning methods or at least help them partly solve these tense situations.

Before 2014, there was one learning advisor for each class [Exh. 8.3-07]. After that, the faculty has done the advisory job in line with the credit training programme by establishing the advisory group [Exh. 8.3-08]. Besides, to ensure the smooth operation of the teaching and learning process and the application of learner-centered strategy, the faculty holds regular meetings between the faculty's management board plus lecturers and students with the aim of answering students' questions about learning, curriculum contents, learning orientation, student services, and so on. After that, there is also a meeting between the university executive board and students [Exh. 8.3-09], [Exh. 8.3-10], [Exh. 8.3-11].

From 2012, the programme has been designed to consist of 150 credits, which are to be accumulated in 4 years. There are two main semesters (I, II) and one summer semester. The study load is allocated evenly in 8 semesters with approximately 15 to 22 credits per semester. In each semester, there are also selective subjects that students can choose to study in accordance with their ability and the advice from the advisory group. Students should attend courses as scheduled and can register for early taking courses or re-taking the courses that they failed. However, the minimum number of credits for an average student in each semester is 15 and

maximum number is 35 [Exh. 8.3-12]. Moreover, students can finish their study at university earlier than the expected time of 4 years [Exh. 8.3-13]. With the credit system, average students still can complete the programme at the expected time and are allowed to request extensions for study in 8 years.

The quality of graduated students have been more and more highly appreciated by recruiters and businesses. Rates of recruited students one month after graduation have been continuously increased since early 2014 (see data in Criterion 14).

9. Student Advice and Support

Students graduating from the Automotive Engineering Technology Programme, HCMC University of Technology and Education have had a chance to study in a good learning environment with a system closely following their progress, different faculties' and centers' advice and support; therefore, they feel satisfied with this learning environment and system.

9.1. There is an adequate student progress monitoring system

Student study load management through different sources of information provided by the Academic Affairs Office, Admissions and Student Affairs Office and the faculty's secretary helps keep track of students' learning progress through published documents or data from the computer system. Besides, the learning advisory staff facilitates students' study.

The Academic Affairs Office is responsible for supervising and speeding up the implementation of regulations on teaching, learning, testing and assessment; handling student affairs, considering credit debts, examining student graduation conditions; managing student study results, confirming student grades; reckoning statistics of student learning to serve teaching and learning quality evaluation purpose, of efficiency in using training facilities and equipments [Exh. 9.1-01], [Exh. 9.1-02], [Exh. 9.1-03].

The Admissions and Student Affairs Office is in charge of receiving student opinions, managing and exploiting student files; implementing rewards, discipline, scholarships and other preferential policies for students; evaluating students' results of extracurricular activities as regulated [Exh. 9.1-04], [Exh. 9.1-05], [Exh. 9.1-06], [Exh. 9.1-07].

The faculty's secretary takes the responsibility of managing student information about learning and training results, scientific research, scholarships, free tuition or tuition reduction, and then reckoning up the statistics to examine students' conditions for rewards, and answering students and their parents' questions [Exh. 9.1-08].

9.2. Students get adequate academic advice, support and feedback on their performance

In the previous academic programmes (in 2008, 2010), the implementation of the 3 supervising systems mentioned above was manual and incomplete. However, in the 2012 academic programme, the university provided an online website (<http://online.hcmute.edu.vn>) to supervise student learning process. This system includes student profiles, school announcements, timetables, examination schedules, grades, study results evaluation, etc. This is a very useful system which assists the Academic Affairs Office, university, faculty and lecturers to closely follow student learning process. Students with good or excellent study results are promptly praised and awarded with scholarships [Exh. 9.2-01], [Exh. 9.2-02].

Thanks to this system, students can quickly get access to their own study results and plan their personal learning appropriately so as to complete the programme successfully and

promptly. Current students or alumni can request the Academic Affairs Office to issue their academic transcripts and send to individual addresses when they need.

Besides, the faculty also set up advisory group, Youth Union and Student Union to discuss, share and mentor problems of learning, scientific research, student activities, policies and career orientation. These advisors are lecturers, seniors or students doing a master's, and all of them are experienced and selected carefully. Each of the advisors has a specific duty and a face-to-face appointment schedule with students. With regard to students who are not able to complete their learning plans, the system will automatically give them warnings or they will receive valuable advice from learning advisors, section management board, and faculty management board [Exh. 9.2-03], [Exh. 9.2-04], [Exh. 9.2-05].

Moreover, students can make face-to-face appointments with the management board of the section or the faculty through contacting the faculty's secretary. In the 2012 academic programme, students are encouraged to contact advisors via facebook, email or personal phone of each advisor (<http://www.online.hcmute.edu.vn> and www.fae.hcmute.edu.vn).

In each semester, both the faculty's management board and the university organize meetings to help students have a chance to share their opinions, ideas, expectations, problems or difficulties in the learning process and to assist the university and faculty to look for solutions [Exh. 9.2-06]. Besides, students can give feedback through the online website and hot e-mails of the faculty's Dean and the university President (<http://www.online.hcmute.edu.vn> and www.fae.hcmute.edu.vn).

Every year, the faculty organizes meetings, scientific workshops, job workshops held by businesses, and alumni reunions. Through these occasions, students can adjust their learning schedules to be in line with social needs (www.fae.hcmute.edu.vn).

9.3. Mentoring for students is adequate

Mentoring activities are adequate. The university has provided an online website system to assist lecturers to get access to students' files, announcements and set up appointments. Students with low average grades will receive warnings about their study results. Those students can talk to the faculty's advisors to find out difficulties in learning and receive useful advice. In case those students need more advice, they can set up an appointment to meet the faculty's Section Head or Deputy Head, or the faculty's Dean or Vice Dean. First-year students are requested to participate in orientation courses in the first semester. Seminars and workshops held by the faculty or the university provide students with soft skills and prepare them for future jobs. Apart from giving advice on subjects taught in each class, advisors, including lecturers, are also in charge of guiding students to do graduation thesis, course project or scientific research [Exh. 9.3-01].

Advisors are always available and do their jobs during the whole academic year [Exh. 9.3-02]. Apart from learning, advisors also give advice on students' socio-psychology as well as daily lives. Along with the faculty's learning advisors, the Student Services Center, also assist students in their learning, working, entertainment, physical training and soft skills development. Cultural, arts and sports activities at university level are supported and aided by the Admissions and Student Affairs Office and become an active learning ground for all students. Learning advisors and the Admissions and Student Affairs Office give full advice on scholarships,

preferential policies and benefits, and other related services [Exh. 9.3-03], [Exh. 9.3-04], [Exh. 9.3-05].

9.4. The physical, social and psychological environment for the student is satisfactory

Among three main advisory contents of the university, there is one concerning student psychology and student life [Exh. 9.4-01]. Advisors in charge are selected from experienced psychology lecturers [Exh. 9.4-02] who are able to help students clear their minds during their learning time at university.

The faculty's and university's Youth Unions assist students in their learning activities by propagating information about the credit training system such as organizing talks on "Effective learning methods," or participating in different emulation activities held by the university [Exh. 9.4-03], [Exh. 9.4-04].

Students are provided with information about health care conditions at the university clinic. School health care information is also popularized among all students in the *Introductory Week* at the beginning of the academic year [Exh. 9.4-05]. The contents of this week focus on medical insurance rights, guidance on timetables, deadlines and university regulations on health care; and health care services. Health problems include chronic diseases that require health care, exemption from National Defense and Security course, exemption or exchange: suitable career consultation [Exh. 9.4-06], [Exh. 9.4-07].

The implementation of students' extracurricular activities evaluation is the base for categorizing study results, rewarding and giving scholarships. Students from poor families are considered to receive annual social welfare [Exh. 9.4-08].

Prospective students and new students are provided with rather enough information about the academic programme, learning progress and future career orientation. Besides, all of the faculty's courses have adequate, diversified and updated material systems, which are introduced to students in course syllabi.

Most members of the faculty's advisory team are young, active, enthusiastic and hard-working in managing and supervising efficiently students' learning activities. The faculty's Communist Youth Union is extremely active in propagating information and encouraging students, in participating in political and entertaining community activities.

Students' learning activities are supervised and managed more closely. Testing and assessment are more objective and teachers can follow students' study results during the whole learning process.

10. Facilities and Infrastructure

Enhancing education quality is the primary aim that Vietnamese educators have always been trying to achieve. Generally, education quality is in fact a combination of excellent performances in such factors as: the curriculum, teaching staff, teaching materials, etc. Among these, facilities and infrastructure definitely play an essential role.

Keeping this in mind, HCMUTE has paid considerable attention to investing in teaching tools and equipment.

10.1. The lecture facilities (lecture halls, small course rooms) are adequate

With a total construction floor area of 127,884 m², the university currently has a sufficient system of facilities which can enable excellent teaching and learning quality. The system includes 177 lecture halls and classrooms, 58 laboratories, 98 practical workshops and 16 computer rooms, as well as a 1,430 m² library which can satisfy students' various study needs [Exh.10.1-01].

Moreover, as an annual activity, the university usually operates investment schemes to erect new buildings, as well as to upgrade and renovate its existing constructions (see Table 10.1). The spacious classrooms and laboratories are well equipped with sufficient modern facilities, fulfilling the requirement of advanced and innovative teaching and learning [Exh. 10.1-02]. In addition, the annual facility maintenance and replacement is constantly performed in the campus [Exh. 10.1-03]. Especially, in 2013, a new 12-storey building (i.e. the center building) was put into use, including an administrative center and four classroom areas with the capacity of thousands of students [Exh.10.1-05]. The whole building, even the self-study areas for students, is equipped with strong and stable wifi system [Exh. 10.1-06]

Regarding facility use, theoretical and IT subjects are usually taught at computer labs and classrooms managed and arranged by Academic Affairs Office. Detailed information about classroom uses can be found at: <http://online.hcmute.edu.vn> [Exh. 10.1-4]. Practical subjects, in contrast, are arranged in laboratories and specialized classrooms directly managed by FVE (please refer to tables 10.1).

10.2. The library is adequate and up-to-date

To meet the teaching and learning needs, HCMUTE has invested money, manpower and necessary resources in establishing a library. With an area of 1,430 m², the library is located right at the center of the campus and closely linked to teaching and learning areas. By on-site reading, readers can explore 46,096 book titles with 48,505 items available at the Reading room. Apart from Vietnamese learning resources, there are many other publications in English, French, German, and Russian in the library. In case teachers and students prefer reading books at home, the library allows them to borrow up to 14 textbooks each semester and 6 reference materials every two weeks.

Moreover, the library was soon connected to the internet, satisfying its users' needs of searching information. The e-resources which have been collected and put into use come from three sources: the free/paid e-database www.cesti.gov.vn; e-resources downloaded from the Internet and stored at the library; and e-textbooks compiled by the university's teaching staff. For the sake of convenience, these e-resources have been uploaded and shared on the library website at <http://lib.hcmute.edu.vn/> [Exh 10.2-02]. They include reference books, textbooks, project reports, dissertations, scientific research, journal article extracts, and the Open Course Ware from Massachusetts Institute of Technology (MIT Open Course Ware). There are now a total of 123 e-textbooks which learners can access on such pages as: <http://sachweb.com>, <http://ybook.vn>, <http://m.alezaa.com>, <http://sachbaovn.vn>, and <http://libnet.vn>. Any update of e-textbooks or new materials is immediately announced to students via individual emails [Exh. 10.2-03] and on the library website.

For FVE teachers and students, the university library provides approximately 307 book titles of automotive engineering technology. Students who major in automotive engineering technology are supplied with all the textbooks in the academic programme [Exh. 10.2-04]. The library currently has 99,627 copies of reference books, equivalent to 14,695 book titles and another 348,220 copies of textbooks, equivalent to 957 textbook titles which students and teachers can borrow home.

Besides the automotive engineering technology textbooks, journals, reference and specialized materials in Vietnamese, there are also books and journals in English. Through reading these books, students can develop their language ability [Exh. 10.2-05].

Table 10.1. Types of available documents in the library

No.	Type	Number of items
1	Vietnamese books	34574
2	English books	6664
3	French books	317
4	Germany books	93
5	Chinese books	10
6	Bachelor Theses	2074
7	Master Theses	4019
8	Reports	450
9	Standards	298
10	Textbooks	310603
11	Reference books	99627
12	Dissertations	2945
13	Scientific researches	1420
14	Journal article extracts	900 catalogues
15	Newspapers, magazines, journals	253 types

Furthermore, the library also can offer a very comfortable reading environment with modern facilities, an airy spacious reading room and librarians with professional service manner. Its working hours, regulations and guidelines are fully shown on the library website [Exh. 10.2-06].

More importantly, the library always sets up plans to upgrade and supplement the reference books and textbooks of automotive engineering technology programme on a yearly basis [Exh. 10.2-07]. This has been established as a standard procedure for later use [Exh. 10.2-08].

10.3. The laboratories are adequate and up-to-date

FVE has 03 specialized rooms, 05 practical workshops and 04 laboratories which can facilitate sufficiently the training of automotive engineering technology [Exh. 10.3-01].

Table 10.2. List of FVE laboratories

No.	Name	Area	Section-in-charge
1	Automotive Engine Lab	112m ²	Automotive Engine
2	Automotive Chassis Lab	30m ²	Automotive Chassis
3	Automotive Mechatronics Lab	56m ²	Automotive Electricity
4	Microchannel Heat Exchange Lab	50m ²	Thermotechnics and Refrigeration

Table 10.3. List of FVE workshops

No.	Name	Area	Section-in-charge
1.	Thermotechnics and Refrigeration Workshop	670 m ²	Thermotechnics and Refrigeration
2.	Automotive Chassis Workshop	670 m ²	Automotive Chassis
3.	Body and Painting Workshop	450 m ²	Automotive Chassis
4.	Automotive Electricity and Electronics Workshop	200 m ²	Automotive Electricity
5.	Gasoline Engine Workshop	803 m ²	Automotive Engine
6.	Diesel Engine Workshop	268 m ²	Automotive Engine

These practical workshops are regularly maintained every year to make sure they are not downgraded, meeting the increasing requirements of teaching and learning activities, as well as scientific research projects [Exh. 10.3-02].

Thanks to the attention and backup from domestic and international enterprises, FVE has received effective funding for teaching and learning. In 2001, TOYOTA Motor Corporation sponsored an over-700-thousand-dollar workshop for automobile engine and body repair. Annually, the faculty also receives regular support from TOYOTA Motor Corporation, as well as other domestic and international companies, namely ISUZU, SIKA, DUPONT, VIKYNO, through the provision and supplementation of teaching and learning equipment.

Moreover, the equipment in the workshops and laboratories are regularly checked and repaired [Exh. 10.3-04], using measuring tools which are also periodically tested and adjusted under an approved procedure [Exh. 10.3-05]. Any upgrade or supplementation of equipment carried out is a part of the plan made at the end of the previous academic year [Exh. 10.3-06], following the same procedure throughout the university.

As a result, the equipment utilization in the FVE's laboratories and workshops is highly efficient [Exh. 10.3-08]

10.4. The computer facilities are adequate and up-to-date

The application of information technology has been implemented widely throughout HCMUTE. In 2013, the university invested more than 20 billion VND to equip IT systems for the entire campus [Exh. 10.4-01]. At present, the information communication among the university management, functional offices, faculties and other units is completely done using information technology [Exh. 10.4-02].

For example, all academic affairs such as score import, score management, students' feedback, course registration, etc. are now done via the Internet [Exh. 10.4-03], which help reduce time and money in printing and storing documents, as well as enable faster and thorough information exchange.

Due to the improvement of network architecture and the complete application of information technology, forms of blended learning such as mobile learning and online learning can presently be conducted at the university. This is sponsored by Pearson Company and supported by the Digital Learning Center [Exh. 10.4-04].

Also, the university website (<http://online.hcmute.edu.vn/> or <http://hcmute.edu.vn/>) and the faculty website (<http://fae.hcmute.edu.vn>) are now the common virtual environments where the information collection and communication between the university and students takes place [Exh. 10.4-05].

For the faculties' academic and secretarial affairs such as importing test and exam scores or printing exam schedule for teachers and students, the faculty uses the Edusoft Academic Management Software. Lecturers who are involved in management work are also trained to use the software facilitating classroom allocation and teaching arrangement [Exh. 10.4-06].

In addition, the lecturers themselves can access their personal page at <http://online.hcmute.edu.vn/> to gain information about their salary and teaching schedules, inform make-up classes and import their students' marks into the system. Besides, they can learn about the students' feedback on their teaching style, content and methods just by clicking on the "Student's feedback" tab. On the same website, students now can register in courses, check their marks and equivalent subjects, and refer to the university's academic regulations.

Besides, all the four sections have been equipped with networked computers to ensure that 100% teaching staff can have full information access for teaching and researching activities. The university even has a wifi network installed in the self-study areas, enabling students' better learning results [Exh. 10.4-07].

Similarly, all the FVE's computers for managerial and administrative use are connected to the internet, and the faculty's academic staff can use the academic management software to work every day. In the same way, the teaching staff at FVE can employ specialized software such as MATLAB and AUTOCAD to support calculation and stimulation, guaranteeing the accuracy and efficiency in teaching and doing research [Exh. 10.4-08].

Furthermore, other common types of software are also used by FVE lecturers in the classrooms. For examples, they use Atech 361 and Atech 3631 in engine control system classes, while TOYOTA Electric and TOYOTA L652 are employed in classes about the car body

electrical system. The AVL Booster, on the other hand, is used to stimulate combustion inside the engine [Exh. 10.4-09].

10.5. Environmental health and safety standards meet the local requirements in all aspects

An important mission of the faculty is to assure teachers and students good health and complete safety while teaching and learning at FVE. There are regulations to protect user's health and equipment safety in workshops and laboratories [Exh. 10.5-01]. Pieces of equipment such as air compressor and crane are periodically checked and maintained [Exh. 10.5-02].

Besides, the fire prevention and fighting regulations are strictly followed in workshops and laboratories [Exh. 10.5-03]. Inside the workshops, there is always at least one person who has been trained about fire and explosion prevention [Exh. 10.5-05] and high quality fire extinguishers which are located at the prescribed positions and checked regularly [Exh. 10.5-04]. During the practicing and learning at the laboratories and workshops, students must wear protective equipment (clothes, boots, and goggles) [Exh. 10.5-06].

Among the university's functional units, the Medical Center has to work on primary health care and manage the health records; manage and raise people's awareness about environmental sanitation, epidemic disease prevention, occupational and social diseases, and industrial hygiene; and do work related to health insurance and accident insurance for the university staff and students [Exh. 10.5-07].

The Medical Center also cooperates with internal or external functional organizations to conduct both regular and unscheduled inspection of food sanitation in the canteens, making sure that the university's staff and students are safe to eat their food [Exh. 10.5-08].

Besides the annual raising-awareness activities on health and sanitation, the Medical Center also counsels the university management to spray insecticides in order to prevent epidemics like dengue fever [Exh. 10.5-09].

11. Quality Assurance of Teaching and Learning Process

As for HCMUTE in general and FVE in particular, the innovation and renovation of academic programmes is always the key mission. All the procedures from designing, implementing to evaluating the curriculum are always carried out with the participation of all the stakeholders: the university scientific board, the faculty scientific board, all the lecturers teaching the courses, the current students, the graduates/the alumni, and especially the enterprises and companies who directly employ the faculty training products.

11.1. The curriculum is developed by all teaching staff members

The current academic programme entitled "Automotive Engineering Technology" was based on the previous programme called "Automotive Engineering" and has experienced a certain number of amendments. For each revision, there is participation of all the faculty scientific board members, prestigious scientists in the automotive field from other universities and enterprises outside the school [Exh. 11.1-01]. For instance, as both the faculty and the university leaders recognized that the current trend in this era is to develop practical application of the industry, they change the name of the programme to "Automotive Engineering Technology." It was designed and developed in the revision process strictly follows the university's procedure for designing and revising academic programmes [Exh. 11.1-02]:

- Lecturers contribute and prepare ELOs by expressing constructive opinions on the ELOs in the faculty's seminars after having analyzed the automotive career and the employers' feedback [Exh. 11.1-03]
- Through conferences on academic programme design, lecturers discuss and give opinions about the structure and content of the programme, design the course syllabi and map out the correlations among courses [Exh. 11.1-04].
- Every semester, the faculty sections conduct a meeting and collect ideas to enhance and update the academic programme from lecturers [Exh. 11.1-03].

11.2. The curriculum development involves students

Students' feedback on how much they are satisfied with the curriculum and the ELOs of the programme has constantly been collected, so that reasonable and timely adjustments can be made before the students enter to the business community. They have contributed a big part in the programme development through their learning and giving feedback. Additionally, after each course, students can evaluate their lecturers and the courses by filling in an online questionnaire and providing additional evaluating information. The results from the surveys are analyzed and synthesized before being delivered to the faculty staff. Based on the results, more revisions and adjustments will be made to the programme in the following semester [Exh. 11.2-01].

Also, at the beginning of each semester, there is at least one meeting between the faculty management, lecturers and students [Exh. 11.2-02]. During this meeting, students can have a voice in the revision of the programme's content, ELOs, courses, etc. The faculty staffs then consider all the opinions and decide how they should change the curriculum. This way, the academic programme has always been revised and adapted in recent years to meet the requirements of the society.

Besides lecturers and students, fresh graduates and alumni also provide their personal evaluation and satisfaction level of the curriculum. The faculty and university analyze their ideas to decide what modification should be made. The process of re-evaluation and revision is always conducted from the section level, the faculty level to the university level [Exh. 11.2-03]. The evaluation and revision of the academic programme are frequently done every 2 years based on the feedback from the stakeholders and the evaluation and revision made at meetings of the faculty's scientific board.

11.3. The curriculum development involves the labor market

Before designing this new academic programme, the faculty had conducted several conferences and invited the employers, alumni and external specialized experts to attend, aiming to collect feedback and opinions on the old programme [Exh. 11.3-01]. During the designing process, it was the faculty scientific board who decided the final outcome of the new programme. Among the council members, there are some representatives from external businesses and FVE alumni [Exh. 11.3-02]. Apparently, the faculty highly appreciates the importance of enterprises to the academic programme.

In addition, on an annual basis, the faculty conducts an alumni meeting on January 1st [Exh. 11.3-03]. During the meeting, the alumni are asked to provide their own feedback as well as the comments from the employers on the programme of Automotive Engineering Technology through a number of questionnaires [Exh. 11.3-04]. This is an opportunity for the faculty

scientific board, employers and alumni to exchange views on matters related to the academic programme, which help update new information and adjust the programme to meet the demands of the job market.

11.4. The curriculum is regularly evaluated at reasonable time periods

The Automotive Engineering Technology academic programme has been prepared and modified over many periods of time. From 180 credits, the number of credits was reduced to 150 in 2012. For each period, the academic programme has undergone frequent and periodical evaluations. Based on the feedback from the stakeholders such as employers, alumni, students and academic staff, FVE's scientific board will evaluate and adjust the academic programme in accordance with the scientific and technological development trend of the society. FVE can actively modify about 7% of the academic programme every semester. The procedures of preparing and adjusting the academic programme have been done according to ISO quality assurance procedures already issued by HCMUTE. [Exh.11.4-01]

Generally, the academic programme is systematically evaluated. Each course is assessed by the section-in-charge every year and by the students at the end of every semester. The university also established different regulations to evaluate lecturers who teach theoretical and practical subjects [Exh. 11.4-02].

The programme content and the results from course evaluation are publicly updated on the university website [Exh. 11.4-03].

11.5. Courses and curriculum are subject to structured student evaluation

Every semester, a meeting to gather student's feedback is conducted at both faculty and university level [Exh. 11.5-01]. All the feedback and evaluation from students of every course, which serve as a basis to adjust the course content, are always synthesized and responded.

Besides, at the end of each semester, student will evaluate teaching activities and the courses they have learned [Exh. 11.5-02], [Exh. 11.5-03]. The participation of students in evaluating theoretical and practical courses can lead to student's satisfaction of the academic programme [Exh. 11.5-04]. The results from course evaluation are announced to each lecturer and faculty management [Exh. 11.5-05].

The evaluation of the academic programme and courses is constantly carried out during the training process. Since 2012, the programme has been designed and revised every two years. On these occasions, the programme writers and all the related lecturers can optimize the programme and make it more effective [Exh. 11.5-06].

The specialized team of each section is responsible for organizing and implementing the revision of the programme, meeting the labor market needs and corresponding with development of the automotive engineering technology. As for teaching methods, the faculty lecturers applied active teaching and learning in class and adapt it to suit the characteristics of each subject.

11.6. Feedback from various stakeholders is used for improvement

Firstly, the results from students' course evaluation are used as a reference for teachers to evaluate themselves, and for the programme writers to improve the syllabi [Exh. 11.6-01]. The course evaluation is done in the last week of every semester and provides an opportunity for students to give feedback on the teaching and learning activities in the faculty as well as the

university. The results are then analyzed, based on which improvement is made, which help enhance students' learning quality [Exh. 11.6-02]. All the results are synthesized and analyzed once in every semester in order to find out the most effective way of improving the academic programme [Exh. 11.6-03].

Secondly, the alumni's opinions about each teacher's strengths and weaknesses help them improve their specialized knowledge, teaching methodology and work ethics Exh. 11.6-04].

Thirdly, the university always appreciates employers' feedback in improving the academic programme. This has led to the establishment of the Public Relations Office [Exh 11.6-05]. As for the faculty, the employers' comments and opinions on students have been used for programme improvement, in order to meet the demands of the labour market and enable the graduates to apply what they learn into reality [Exh. 11.6-06].

Some revisions made as suggested by stakeholders are listed in the following table:

Academic year	Suggestions	Stakeholders	Revisions	Evidence
2010-2011	<ul style="list-style-type: none"> - Increase practicing time - Improve students' English ability - Decrease the number of credits - Add more knowledge about new systems, automobile automatic system - Replace the course "Introduction to Computers Science" with "Visual Basic Programming" 	Alumni, students and fresh graduates	<ul style="list-style-type: none"> - Replace the course "Introduction to Computers Science" with "Visual Basic Programming" - Add some more elective subjects such as: New energy for automobiles, Automatic safety system 	<p>The 2011 academic programme</p> <p>Academic programme questionnaires</p> <p>Faculty meeting minutes</p>
2011-2012	<ul style="list-style-type: none"> - Add one more course: Introduction to automotive engineering technology - Decrease the number of credits of political courses - Develop a 150-credit programme, oriented to motivating students' 	Employers, Alumni, Lecturers, Students Experts	<ul style="list-style-type: none"> - The 2012 academic programme has only 150 credits - Integrate political subjects to reduce the number of credits - Add one more course: "Introduction to Automotive Engineering Technology" - Announce the ELOs of Automotive Engineering Technology 	<ul style="list-style-type: none"> - Decisions on Automotive Engineering Technology ELOs No. 558/DHSPKT -DT and 559/DHSPKT -DT - The 2012 academic programme

	<p>designing ability; complete the programme's ELOs and add another ELO, develop a detailed syllabus and teaching schedule for "Introduction to automotive engineering technology" course</p> <ul style="list-style-type: none"> - Separate theory and practice parts in former integrated courses - Add some elective subjects which are appropriate for the development trend of the industry 		<ul style="list-style-type: none"> - Two courses are excluded from the programme (Fuel and Lubricants and Driving Practice) while other elective specialized courses are included (Automobile and the Environmental Pollution, New Energy for Automobile, and Hybrid Electric Vehicles) - Add 3 subjects: The application of automotive stimulation and calculation software, Chassis, and Electricity - Increase the number of credits for the graduation thesis from 7 to 10 	
2012-2013	- Propose teaching assistance scheme	Lecturers	- Designing regulations on teaching assistance	Decision No. 279 /QĐ-ĐHSPKT-ĐT
2013-2014	- Set community service and social work as a requirement for graduation	Employers, Alumni and Fresh graduates	- Set community service and social work as a requirement for graduation	Guideline No. 757/HD-ĐHSPKT-ĐT dated 03 September 2014 Decision No. 764/ĐHSPKT-ĐT
2014-2015	<ul style="list-style-type: none"> - Include work ethics in the programme's objectives - Revise the ELOs 	Experts, Lecturers, Alumni and Fresh Graduates	<ul style="list-style-type: none"> - Include work ethics in the programme's objectives - Revise the ELOs 	The 2015 programme's objectives and ELOs
2015-2016	Change the arrangement of some courses	Students, Lecturers	Change the arrangement of some courses such as Visual Basic Programming	

11.7. The teaching and learning process, assessment schemes, the assessment methods and the assessment itself are always subject to quality assurance and continuous improvement.

The university's Quality Assurance Office (QAO) is responsible for quality assessment and assurance [Exh. 11.7-01]. The office's detailed missions and responsibilities are described on its website [Exh. 11.7-02]. Those include conducting surveys and internal assessment on the university's education quality, as well as coordinating the assessment and accreditation at programme level and university level in accordance to MOET's and international standards [Exh. 11.7-03], [Exh. 11.7-04], [Exh. 11.7-05].

Moreover, regulations on exam organization are strictly followed by the university and faculty [Exh. 11.7-06]. All the teaching, learning, and testing activities are assured to comply with the standard procedure written by the QAO. The tests are designed and duplicated according to the regulations, guaranteeing their validity and reliability.

Finally, the compliance with regulations on teaching is supervised by the Academic Inspectorate Office (AIO), which is conducted every day. Any violation of the regulations is recorded and sent to the faculty management, so that they can have a solution to deal with lecturers who are in the violation list [Exh. 11.7-10]. A number of violations have been timely discovered by the regular inspection, which enables the university to reduce bad consequences and improve the overall education quality [Exh. 11.7-11].

12. Staff Development Activities

12.1. There is a clear plan on the needs for training and development of both academic and support staff

In order to develop the teaching staff, HCMUTE has established a procedure for "Training and developing human resources." This aims to encourage them to continuously improve their professional knowledge and skills. Besides, it also issued regulations on professional development and training at doctoral level between 2011 and 2015, and the implementation schemes of the Foreign Language Project 2020 in tertiary educational institutions in the 2012-2020 periods.

Keeping in mind the significance of using English in teaching, learning and doing research, the university usually organizes English courses for staff at school and overseas [Exh. 12.1-01]. In addition, incentive policies to encourage the staff to improve their English proficiency are also put into use. For example, those who have great achievement in the annual English proficiency test are usually awarded by the university [Exh. 12.1-02].

Being one of five Vietnamese universities participating in HEEAP project, the university regularly sends FVE lecturers to training courses at the University of Arizona, USA [Exh. 12.1-03]. Through the training courses, they have a chance to learn about other universities' academic programmes, which help the faculty make timely adjustment to their own curriculum and its related content [Exh. 12.1-04].

Based on the university's medium-term strategic plan, the faculty's development plan and the lecturers' aspiration for professional development, the faculty proposes a list of lecturers for training courses and sends to the university leaders for approval [Exh. 12.1-05]. The university also has policies to support those who are doing their Master's or Ph.D. degrees in Vietnam.

Moreover, to facilitate scientific research activities, it also issues policies to well treat the lecturers who have project reports published in national and international journals [Exh. 12.1-06]. This aims to improve the qualifications of staff and reinforce the position of the university in the society.

Additionally, the faculty annually sends its staff to professional training courses, in cooperation with TOYOTA (Japan), DuPont and Atlanta Corporation (USA), and support them to take part in other domestic and international conferences, seminars and short courses [Exh. 12.1-07].

Apart from appointing teachers to gain experiences from companies, the faculty also invites enterprises' representatives to attend its regular meetings where they can share and exchange views on academic matters [Exh. 12.1-08]. To improve teaching methodology, a great number of courses and training sessions have been conducted such as: teaching principles at university level, pedagogy in tertiary education, innovations in testing and assessment, ELOs and HEEAP [Exh. 12.1-09].

12.2. The training and development activities for both academic and support staff are adequate to the identified needs

Academic activities

Every year, the university announces and implements educational cooperative programmes with foreign countries, including HEEAP, short language courses in the Philippines, other courses in Indian (ITEC Programme) [Exh. 12.2-01], courses from Vietnam Education Foundation (VEF) [Exh. 12.2-02], and scholarships from regional and international universities [Exh. 12.2-03].

Activities to support teaching and learning

The faculty cooperates with the AAO and enterprises to gather feedback and conduct training sessions on designing and developing academic programmes and course syllabi, teaching methodology, testing and assessment, IT application in teaching, and E/M learning for FVE lecturers [Exh. 12.2-04]. It also organizes teaching contests and teaching cross-observations where they can share experiences on professional knowledge and teaching methodology.

Activities for office staff

Besides the teaching staff, the office employees are usually sent to management skills courses where they can be trained to work more effectively and meet the demands of the students [Exh. 12.2-05].

13. Stakeholders Feedback

The quality of a curriculum is reflected through the feedback and evaluation of its stakeholders, including lecturers, students, alumni, employers and consultants. Their feedback and opinions are collected to improve the programme and gain their satisfaction. The procedure is as follows:

Step 1: Information collection

The QAO and PRO design a plan to survey the stakeholders and create an evaluation form. The form is then delivered to the employers (by post or email) to gather the feedback on the academic programmes.

Step 2: Information synthesis and analysis

After that, the QAO, PRO and experts synthesize and analyze the collected data, which results in a report of the survey findings.

Step 3: The survey results are then sent to FVE

Step 4: Create an action plan for quality improvement

Once FVE has the results, it conducts a meeting to decide what should be revised about the programme, teaching activities, student management, student support and other extracurricular activities.

13.1. There is adequate structured feedback from the labor market

Annually, the Admission and Student Affairs Office (ASAO) and the QAO collect the feedback and evaluating comments from enterprises on the graduates' quality. The evaluation form is handed over directly to enterprises or by post [Exh. 13.1-01]. In 2014, the response rate of the enterprises was 44.4% [Exh. 13.1-02]. The questionnaire result was then analyzed and sent to the faculties with an aim to have continuous programme improvement [Exh. 13.1-03], [Exh. 13.1-04].

13.2. There is adequate structured feedback from the students and alumni

The university and FVE have established an Alumni Association to intensify the information exchange between alumni, enterprises, the faculty and the university [Exh. 13.2-01].

The faculty's Alumni Association usually updates alumni's information and organize annual meeting on 1st January every year [Exh. 13.2-02], [Exh. 13.2-03]. On these occasions, a detailed and well-designed survey form is delivered to the alumni [Exh. 13.2-04]. Their feedback is then collected and reported to the faculty [Exh. 13.2-05]. As informed by the representatives of the FVE Alumni Association, most of the alumni express their high satisfaction level to the school curriculum.

For the fresh graduates, they are surveyed at the end of the programme by filling directly in a questionnaire on the university website. The survey is conducted by the QAO in cooperation with FVE. [Exh. 13.2-06]. For those who cannot complete the questionnaire online, they can be given a hard copy to fill in on the day of graduation. [Exh. 13.2-07], [Exh. 13.2-08].

The result from this survey is also synthesized by the QAO and sent to the faculty for reference [Exh. 13.2-09], [Exh. 13.2-10]. Based on the report, it can organize a meeting to discuss ways of renovating and improving teaching methodology and the academic programme [Exh. 13.2-11].

For current students, the Academic Affair Office (AAO) and the QAO work together and create an online evaluation system on the university website, aiming to collect feedback from students about the courses they have done in each semester [Exh. 13.2-12], [Exh. 13.2-13], [Exh. 13.2-14], [Exh. 13.2-15], [Exh. 13.2-16], [Exh. 13.2-17].

From the feedback of students, the QAO synthesize and send a report to the faculty [Exh. 13.2-18], including the students' feedback on each lecturer.

As a procedure, the faculty then organizes section meetings, followed by a faculty meeting, in which they discuss curriculum revision and effective methods of testing and assessment to enhance the programme output quality. Each lecturer has to submit a performance report at the end of each school year [Exh. 13.2-19]. Besides, the faculty also arranges meetings between students and the management, answering students' questions about the curriculum as well as other studying conditions every semester [Exh. 13.2-20], [Exh. 13.2-21]. The results from the evaluation of teaching activities are analyzed by the QAO, resulting in a report where the causes and the solutions to existing issues are addressed. The report is sent to the faculty as a reference to have a timely plan for innovations [Exh. 13.2-22].

13.3. There is adequate structured feedback from the staffs

The annual HCMUTE summer conference, which aims to review the previous year's work at UTE and map out the key missions for the following year, is organized to simultaneously collect the feedback from key staffs of the school [Exh. 13.3-01],[Exh. 13.3-02]. This feedback plays an important role to develop and improve the academic programmes and offices' performances. A survey conducted by the Administrative Affairs Office has shown that most of the functional offices provide good service quality with friendly attitudes [Exh. 13.3-03].

14. Output

Since graduates are the output of an academic training programme, stakeholders have to take into considerations such factors related to graduates as the pass rate, dropout rate, training duration, employment rate and their ability to do scientific research.

At FVE, the on-time pass rate has stayed almost the same in the recent years and the average training duration has been reasonable, which shows that the curriculum is appropriate to students. Moreover, the graduates also meet the requirements of employers in terms of professional knowledge and skills. Especially, they have adequate ability and qualifications to teach and research at universities, colleges, and vocational schools, as well as are able to pursue higher education, namely doing their master's or Ph.D. degrees inside and outside the country.

14.1. The pass rate is satisfactory and dropout rate is of acceptable level

HCMUTE examines pass rate and dropout rate in accordance to the MOET's Regulation No. 43/2007 and its own academic regulations. A student regarded as a graduate must have completed 150 credits and their GPAs must be at least 2 (on the scale of 4) or 5 (on the scale of 10) [Exh. 14.1-01]. To make the process easier, software has been used to record students' marks, calculate the pass and dropout rates and examine which students can graduate from the university [Exh. 14.1-02]. This computer system also enables students to check up their marks quickly and monitor their own progress, and simultaneously helps the AAO manage effectively the pass and dropout rate of students.

In the past eight years, the average pass rate is 77% [Exh. 14.1-03]. The graduation rates of the recent years are relatively low as shown in Table 14.1 because the number of students who extend their learning is not included. The dropout rate (including dropouts for health reasons) makes up 9.06% [Exh. 14.1-04]. This dropout figure has had a tendency to decrease year by year. The following table illustrates the statistics of pass and dropout rates at FVE.

Furthermore, the university and faculty always care about students' learning progress. At the beginning of each semester, a list of students who are warned of their academic results is announced to the whole university. Those who can register in courses are also informed [Exh. 14.1-05]. The table 14.2 below indicates that the pass and dropout rates in compliance with

MOET's Regulation No. 43/2007 at FVE are at satisfactory and acceptable level. So as to decrease dropouts, some effective measures have been implemented: establishing a group of academic advisors, making the most use of the e-mail system and improving the online academic records Exh 14.1-06], [Exh 14.1-07].

14.2. Average time to graduate is satisfactory

According to the MOET's Regulation No. 43/2007 which HCMUTE currently uses for its academic programmes [Exh. 14.2-01], students are considered as on-time graduates if they can finish the courses in four years. However, the duration to graduate can be extended up to eight years. Differently, many students choose to do some courses ahead of the schedule, accounting for 2.8% of the pass rate [Exh. 14.2-02]. These students were well awarded by the school [Exh 14.2-03]. The majority of students, however, choose to follow the fixed academic schedule. Around 57.5% of the input students can graduate in four years, and another 21% graduate in more than four years [Exh 14.2-04]. Fortunately, the latter figure is steadily falling, showing that the revision of the programme in all aspects has been on the right track.

Table 14.1. Student performance for 8 cohorts

Academic year	Size cohort	% First degree after			% dropout after			
		4 years	4.5 years	> 4.5 years	1st year	2 years	3 years	>3 years
2015 - 2016	360							
2014 - 2015	362				4.70			
2013 - 2014	330				5.45	7.58		
2012 - 2013	280				5.71	8.57	10.36	
2011 - 2012	230	65.22	23.48		5.22	6.52	9.13	9.13
2010 - 2011	149	61.07	12.08	13.42	8.72	11.41	13.42	13.42
2009 - 2010	130	63.08	20.77	9.23	4.62	6.15	6.92	6.92
2008 - 2009	143	58.04	18.88	11.19	7.69	10.49	11.89	11.89
2007 - 2008	132	56.82	22.73	6.82	9.09	13.64	13.64	13.64

The average time to graduate for AET students is four years (eight semesters). This figure is influenced by such factors as: students' initiative to register in courses, doing the courses as scheduled by AAO at the beginning of each semester [Exh. 14.2-05], and the adequate number of workshops [Exh. 14.2-06]. Late graduates usually include those who cannot register in courses as planned, fail several courses at the same time, or have to do a part time job to earn a living. In addition, it is sometimes hard to achieve the ELOs of some courses. To tackle the situation, the university has opened the third semester in which students can register in failed courses or study ahead of the schedule, shortening the learning duration. Students are allowed to flexibly choose the courses they want to study according to their own plan, making sure they can graduate on schedule or even finish school early. Furthermore, a list of equivalent subjects is provided so that students can have more options to complete the courses [Exh. 14.2-07], [Exh. 14.2-08], [Exh. 14.2-09].

14.3. Employability of graduates

Most of the graduates have good professional knowledge, specialized skills and adequate language ability, satisfying the employers' requirements. As a result, FVE graduates are usually highly appreciated. The percentage of students who can find a job right after their graduation is 63.4% [Exh. 14.3-01]. Especially, approximately 69% of graduates work in the automotive engineering technology [Exh. 14.3-02]. Among those, a good number of fresh graduates can be

employed shortly after finishing the courses or graduation thesis. Apparently, the revision of the curriculum based on the alumni's feedback has helped satisfy the social needs [Exh. 14.3-03].

Table 14.2. The employment status of graduates (after 03 months of graduation of UTE)

Graduation time	3/2009	9/2010	3/2010	8/2010	3/2011	9/2011	3/2012	9/2012	3/2013	9/2013
Survey time	6/2009	1/2010	8/2010	12/2010	6/2011	1/2011	6/2012	1/2013	5/2013	1/2014
Number of graduates	1557	1659	1477	1211	1569	1230	1585	1749	1802	1917
Number of surveyed graduates	764	691	937	663	964	1034	1074	998	548	1015
Employed (%)	71.18	80.45	81.28	82.3	78.02	83.28	68.9	66.33	54.87	68.9

Especially, many graduates are now teachers at universities and colleges in HCM City and nearby provinces. A good number of the graduates are now doing their Master's or Ph.D. Degrees domestically and internationally [Exh. 14.3-04].

It is noted that since March 2014, survey data could be separated by disciplines as in Table 14.3. Prior to that, surveys were for the whole university.

Table 14.3. Employment status of AET graduates in recent surveys.

	Employment rates immediately at graduation (%)	Employment rates 1 month after graduation (%)	Employment rates 3 months after graduation (%)	Employment rates 4 months after graduation (%) (<i>accumulative number</i>)
Mar.2014	13.3	13.3	33.3	59.9
Sept.2014	17.9	32.8	10.4	61.1
Mar.2015	14.3	33.3	9.5	57.1
Sept.2015	20	23	13	56

14.4. The level of research activities by academic staff and students is satisfactory

Scientific research is essential and consistent with the university and faculty's missions and visions. Some of the FVE's lecturers are leading experts in automotive engineering technology, whose research reports have been published on prestigious domestic and international scientific journals [Exh. 14.4-01]. Additionally, the number of scientific research is increasing and the quality of the studies also reaches higher level. More and more quality research projects have been done in the last years, including three ministerial level projects, three city-level projects, and 12 university-level key projects [Exh. 14.4-02, Exh. 14.4-03].

Table 14.4. The amount of scientific research by FVE students and lecturers

Year Type of Project	2011	2012	2013	2014	2015
Research projects by students	13	29	10	12	11
University-level research projects	21	22	30	21	17
University-level key research projects for young lecturers	8	2	4	6	8
Contract Research (Ministerial level research, City-level research and Young lecturers projects)	0	1	2	3	3

Students' doing research is a must to improve the education quality. Graduates who conducted at least a study at school can easily fulfill the job requirements as well as the demands of postgraduate education. For that reason, a great number of FVE students have participated in scientific research projects [Exh. 14.4-04], [Exh. 14.4-05] and won a number of awards such as Eureka, Eco-Friendly Vehicle, etc. [Exh. 14.4-06].

Table 14.5. The number of research papers by FVE lecturers

Types	International				Domestic	
	SCI, SCIE	ISI, EI	Journal/ chapter	Conference	Journal	Conference
Total	7	6	17	22	27	18

15. Stakeholders Satisfaction

The feedback from stakeholders is satisfactory

A. Student feedback

FVE students can easily get the information about the academic programme and its ELOs on the faculty website [Exh. 15.1-01]. In addition, lecturers also announce the detailed syllabus and tools of assessing students' learning in the first lesson.

The QAO also creates an assessment system for students to evaluate their lecturers' teaching activities at the end of each semester [Exh. 15.1-02]. The online questionnaire includes the following categories of criteria: teaching methodology, teaching content, methods of testing and assessment, and teacher's pedagogic style [Exh. 15.1-03], [Exh. 15.1-04]. Students' feedback will be analyzed in a summary report, which is uploaded onto the university website and sent to the faculty management [Exh. 15.1-05]; [Exh. 15.1-06]. This information also appears on teachers' personal page [Exh. 15.1-07].

The faculty records the courses in which the teacher involved is evaluated under the good level and announces it to the section-in-charge. The involved teacher has to take actions for improvement in the next semester.

The QAO's survey at the end of academic year 2013-2014 revealed that 83.81% of FVE lecturers achieve the good level – the highest rate in the university. There were no lecturers who had the average teaching assessment score under 72. Only one teacher was evaluated 72 in one criterion, accounting for 2.7% [Exh. 15.1-08]. To tackle this, the faculty worked together to find

a solution and encourage lecturers to improve their teaching methods for better education quality. Apart from this, the faculty and university regularly organize training courses with an aim of improving their professional knowledge and skills [Exh. 15.1-09].

B. Graduates feedback

As mentioned before, the QAO usually survey the fresh graduates on the day of their graduation [Exh. 15.2-01]. For example, there were 135 FVE fresh graduates participating in the survey in March 2014. Among those, 54.8% said they had got a job within three months after finishing the programme [Exh. 15.2.02]. To help boost this figure, the university has taken measures supporting current students and fresh graduates to find a job [Exh. 15.2-03].

In September 2014, the university established the Public Relations Office whose responsibilities are to support students in their job hunting, open soft skills courses, and organize company visits for students [Exh. 15.2-04], [Exh. 15.2-05].

C. Alumni and enterprises satisfaction

The feedback from the FVE alumni and enterprises are very important because students' working performances reflect the quality of the academic programme. To obtain such feedback, questionnaires are sent to business representatives in job affairs at HCMUTE. This is periodically conducted to investigate the satisfaction level of the employers towards employees, i.e. HCMUTE graduates [Exh. 15.3.01]. The companies chosen for survey are those who have ever employed FVE graduates.

The results show that most of the FVE graduates work in engineering departments, where they are said to have the flexibility and quick adaptation to the working environment by 60.42% of the employers. Outstanding professional knowledge is another advantage of the graduates which 68.75% companies appreciate. Similarly, 60.42 % of the surveyed employers said FVE students have the ability to update new specialized skills and knowledge. However, 70.83 % of the business representatives agreed that FVE show their weakness in English proficiency. They suggest finding ways to improve students' language ability and social soft skills. As a response, the Public Relations Office has cooperated with external companies to organize soft skills training courses for students, meeting the demands of enterprises.

PART III

**STRENGTHS AND
WEAKNESSES
ANALYSIS**

1. Criterion 1: Expected Learning Outcomes

Strengths

With an aim to gather feedback from stakeholders on expected learning outcomes, FVE has collected and consolidated data from alumni, managers currently working at companies, agencies and factories related to the field of automotive engineering, lecturers and students. The collected information reveals limitations of the academic programme which may help the adjustments of programme contents and the allocation of knowledge areas of the programme become more appropriate to meet the requirements and the future trend of automotive engineering development.

Areas for improvement

The imbalance in the quantity and proportion of stakeholders has resulted in difficulties in consolidating and analyzing feedback.

Plan for improvements

In 2016, the process of information collection needs improvements to obtain better results which will lead to more accurate evaluation of the programme.

2. Criterion 2: Programme Specification

Strengths

The academic programme has been presented in details and made available to every lecturer, student and stakeholder. This not only helps students in actively making their own study planners but also facilitates employers in better understanding competencies of students after the training programme.

Areas for improvement

There should be more elective courses in order to meet the learning needs as well as to make the programme more adaptive to the rapid development of science and technology and the increasing demands of local and international labor markets.

Plan for improvements

For the time being, FVE will set up plans to supplement and adjust the available courses as well as add more necessary subjects to meet the aforementioned requirements.

3. Criterion 3: Programme Content and Structure

Strengths

The programme structure has been logically and scientifically built. The continuous modifications and updates have been made with the contributions of enterprises and stakeholders and with strictly-refined reference to academic programmes of prestigious national and international universities. The programme contents have been updated constantly by adding new courses or integrated courses with a view to promoting learners' self-study ability, meeting the increasingly high demands of the society, meanwhile, confirming what has been stated in the vision and mission of HCMUTE.

The courses are allocated in a proper and inter-related manner, facilitating the thorough and easy acquisition of knowledge. Especially, elective courses will help learners promote their strengths and orient research areas for post-graduate education.

Areas for improvement

Due to HCMUTE's regulation on minimum number of students attending theoretical courses, there has been a contentious situation that certain elective courses with less than 30 student enrollment are cancelled against the learning needs of the students.

Plan for improvements

Next year, the problem with theoretical classes of fewer than 30 students will be taken into consideration by HCMUTE.

4. Criterion 4: Teaching and Learning Strategy

Strengths

The teaching and learning strategy of the faculty is always based on learner-centered principle, feeding learners' needs of knowledge, allowing students to be active learners, motivating students to learn with passion and creativity. Online and digital teaching methods have been applied and training soft skills to students has been of great attention. Because detailed course syllabi for each semester are available, students can make study plans suited to their own abilities. Thanks to this, the training quality has been improved.

Areas for improvement

In the cases of large classes, lecturers have found it hard to cater to every single student in class.

Plan for improvements

This problem has been solved by effectively employing a team of teaching assistants.

5. Criterion 5: Student Assessment

Strengths

Assessment methods and procedures have been diversified to ensure the objectivity, fairness and suitability to teaching and learning modes. By doing this, the university teachers are able to carry out frequent assessments on the attitudes and learning outcomes of the learners.

Types of assessment fairly and reliably reflect the learners' outcomes. It means that lecturers are able to measure student competency, enabling them to select the most appropriate teaching method to maximize students' learning. Scoresheets and answer keys are disclosed widely to all of the students as a proof of fairness.

Areas for improvement

Some impediments in student assessment are as follows:

The faculty has not reviewed each type of assessment applied for specialized subjects of the programme. There have been no surveys on the students' use and application of

knowledge, soft skills into practical working environment.

Although examinations are conducted strictly in accordance with the university regulations, violations of exam regulations are still found.

Plan for improvements

To deal with such limitations, the faculty has come up with the solution of delivering questionnaires to students at the end of each course and having students do more frequent evaluation on the curriculum.

The faculty will also review and decide which assessment type is appropriate for each subject, improve and enhance the quality of outcome-based assessment and continue the investigation into assessment methods of both teachers and learners.

6. Criterion 6: Academic Staff Quality

Strengths

The recruitment of academic staff of the faculty has been done strictly. All the lecturers have pedagogical skills and have been provided with favourable conditions for self-improvement. Rights and responsibilities of academic staff are explicitly described in legal documents issued by the Ministry of Education and Training or by the university.

Areas for improvement

Staff appraisal is conducted at the academic year end. However, this work is still complicated, time-consuming so changes are needed to make it simpler and more accurate.

Plan for improvements

In order to overcome the aforementioned limitation, in 2016, HCMUTE will prepare plans to reduce the time for staff appraisal but still produce accurate evaluation on academic staff's working results and competencies.

7. Criterion 7: Support Staff Quality

Strengths

Support staff plays an important role in teaching and learning activities of teachers and students, partly contributing to ensuring the learning outcomes and programme quality. Support staff from functional offices have high qualifications and show enormous enthusiasm for their work. All of the support staff at laboratories and workshops have sufficient expertise and experience in automobile engineering field. It is an important element promoting the learning and scientific research of the faculty's students. The achievements that our students have earned in local and international competitions such as Robocon, eco-car design, fuel-saving vehicle design, etc.

Members of student advisory board have been selected from related offices of the university. Their role is to respond to students' questions and desires in a timely manner.

Areas for improvement

Due to the fact that there is only one library and computer center for the whole university with limited number of support staff, the needs of students to use books and computers to get access to learning materials have not been met satisfactorily.

Plan for improvements

In order to overcome the aforementioned limitations, the university library will be renovated and expanded with a view to better meeting the learning and entertainment demands of the students.

8. Criterion 8: Student Quality

Strengths

With a clear student intake policy and the faculty's introduction to high school students, the quality of freshmen is elevated. Furthermore, the study load turns out to be appropriate for the majority of students, therefore, the quality of graduates is increasingly recognized by the whole society.

Areas for improvement

Despite an increasing number of graduates being employed, there are still some unable to find a job after a year. Therefore, the organization of more employment fairs and joint activities between the university and potential employers, etc. is a kind of support for students which needs to be strongly promoted in the time being

Plan for improvements

Realizing the limitations above, HCMUTE and FVE have carried out activities such as job consultancy and job fairs to further improve the rates of students earning a job immediately after graduation.

9. Criterion 9: Student Advice and Support

Strengths

Freshmen and stakeholders have been fully provided with necessary information on curriculum, learning progress and job orientation after graduation. Accompanied with the courses is a system of adequate, diversified and up-to-date learning documents. The team of young, dynamic and enthusiastic advisors has been willing to give advice to students on any learning-related matter. The Youth Union of the faculty has shown their activeness in propagandas and campaigns on learning activities, political issues, entertainment and community services, etc.

The facilities, equipment and learning condition of the students have ensured the training and scientific research. The supervision and management of student learning activities have been strictly done. Thanks to this, the academic lecturers have always been able to keep track of student learning outcomes throughout the learning process.

It is easy for students to receive support on reference materials from the university and faculty libraries, teaching staff and other sources (i.e. Internet, online databases, etc.). Information on scholarship and job opportunities has been regularly posted on the faculty and section websites.

Areas for improvement

Course registrations have been done online. However, due to their ignorance of the process, a number of students have had difficulty in course registrations.

Plan for improvements

In order to overcome the aforementioned limitations, in 2016, the advisory team will improve their activities, focusing on giving guidance on course registration to freshmen by various channels.

10. Criterion 10: Facilities and Infrastructure

Strengths

Being aware that facility is one of the most important elements to decide the training quality, HCMUTE has shown its attention in making investments into facilities as well as learning and teaching equipment and tools.

The library has a sufficient collection of materials and documents to meet the needs of research, teaching and learning. IT application has been widely done in every aspect of teaching, learning and information communication within the university.

The faculty's facility has satisfactorily met the demand of teaching automotive engineering technology programme. Tools and equipment have been effectively exploited.

Areas for improvement

The corporate sponsorship of equipment is not frequent.

Plan for improvements

FVE will carry out activities of public relations and promote the faculty's images more continuously and widely.

11. Criterion 11: Quality Assurance of Teaching and Learning Process

Strengths

The curriculum has been developed and contributed by the faculty's Scientific Board, internal and external lecturers, especially with the active participation of such stakeholders as current students, alumni and enterprises. Constructive ideas collected on a regular and periodical basis have become the basis for the modification and revision of the curriculum to ensure the teaching quality and meet the increasingly high demand of the society. High satisfaction levels of alumni and employers as well as employment rate of graduates are clear proof for this.

Highly effective teaching and learning quality is achieved thanks to the fact that all the procedures and regulations on learning and teaching have been ensured and maintained by QAO as well as closely supervised by AIO.

Areas for improvement

For emotional interference, results from student evaluation are not completely accurate and objective.

Plan for improvements

The modification and amendment of further data collection are needed to be done more frequently.

12. Criterion 12: Staff Development Activities

Strengths

Staff development plays an important role in the developmental strategy of the university. Through the policies supporting the staff to learn and enhance their knowledge and skills together with professional fostering courses held by the university itself, the staff of the faculty in particular and the university in general have developed both in quantity and quality, satisfying the higher and higher demand of the learner. Collaborative activities with peer universities and large corporations such as: TOYOTA, DuPont, ISUZU, Ford, etc. are one of the key channels for fostering the human resources of the university.

The faculty has greatly focused on the acts of appointing its teaching staff to take part in training courses and learn from practical corporate experience as well as inviting enterprises to give presentations at topic-based seminars or deliver lectures to the faculty's students, thereby enhancing the teaching staff quality and creating job opportunities to students upon graduation.

Areas for improvement

For lack of co-ordination between the two related parties, the opportunities for the faculty's teaching staff to extend their skills and knowledge at these corporations abroad are still limited. It is necessary to speed up these activities for the time being.

Plan for improvements

FVE will carry out activities to gain closer relationship with both local and overseas companies and promote professional fostering activities for FVE's academic staff.

13. Criterion 13: Stakeholders Feedback

Strengths

The university has Quality Assurance Office and Public Relations Office to set up a system of data collection from stakeholders to serve the curriculum appraisal and improvement, partly contributing to the enhancement of teaching and learning quality to meet the social demands. At the faculty level, the Board of Management has founded an alumni association. In order to get feedback on training quality and capability of meeting job requirements, alumni meetings are held on 01 January annually. Moreover, the faculty has also established a close bond with big companies such as TOYOTA, FORD, KIA, HUYNDAI, MERCEDES, etc. with a view to seeking sponsorship, training support and facilitating the investigation and evaluation of the training quality.

Areas for improvement

Since the annual alumni meeting is held on 01 January only, the feedback from alumni is not collected frequently.

Surveys on how well the faculty's students respond to the job requirements have not been conducted widely at enterprises within and beyond the industry of automotive engineering technology but limited to some companies in Vietnam, i.e. TOYOTA, FORD, etc.

Plan for improvements

The survey on the levels of graduates' responding to job requirements will be conducted at companies in and outside the field of automotive engineering technology.

14. Criterion 14: Output

Strengths

The graduation rate of Automotive Engineering Technology students is considered satisfactory. There is an increase in the number of students graduating prior to schedule thanks to the encouragement policy of the university. The drop-out rate is decreasing because the faculty and university have issued preventive methods such as: building a team of advisors to help students solve their problems as well as orient their learning activities.

Areas for improvement

There is a high rate of students being employed. However, the number of students succeeding in job seeking right after graduation is still low. To deal with this, every year, the university holds a job fair right on the diploma-presenting date for students to have contact with employers at the university campus. The faculty's staff and students have participated in doing scientific research and the quantity of works being published on specialized magazines locally and internationally is on the rise. But practical application of these studies is still low.

Plan for improvements

Finding a match between the institutional research and the local need is the only solution to this problem. For the time to come, it will be executed.

15. Criterion 15: Stakeholders Satisfaction

Strengths

Collecting stakeholders' feedback is of great concern to the university. Its Office of Quality Assurance and Public Relations Office were established to gather and analyze feedback from graduates, alumni, teaching staff on the curriculum, teaching quality, ability to respond to job requirements of students and other activities related to teaching and learning. FVE has developed its own website so as to provide necessary information to students and gather feedback from enterprises and alumni. Besides, the faculty has also organized a team of advisors to offer support to students.

Areas for improvement

Nevertheless, in order to make the website more professional, an technician is needed to make sure the information provided to students, teachers and enterprises will be conveyed better. Improving students' foreign language competency to better satisfy social needs is a duty assigned for the faculty in the coming time.

Plan for improvements

Foreign language proficiency level of students has been improved by essential activities such as: students' English club, teaching in both Vietnamese and English, etc. Appointing one staff member to take charge of the faculty's website will be taken into consideration in the 2016 personnel plan.

Checklist for AUN Quality Assessment at Programme Level

CONTENTS	1	2	3	4	5	6	7
<i>Criterion 1. Expected learning Outcomes</i>							
The expected learning outcomes have been clearly formulated and translated into the programme					X		
The programme promotes life-long learning					X		
The expected learning outcomes cover both generic and specialised skills and knowledge					X		
The expected learning outcomes clearly reflect the requirements of the stakeholders					X		
Overall opinion	5.0						
<i>Criterion 2. Programme Specification</i>							
The university uses programme specification					X		
The programme specification shows the expected learning outcomes and how these can be achieved					X		
The programme specification is informative, communicated, and made available to the stakeholders					X		
Overall opinion	5.0						
<i>Criterion 3. Programme Structure and Content</i>							
The programme content shows a good balance between generic and specialised skills and knowledge						X	
The programme reflects the vision and mission of the university						X	
The contribution made by each course to achieving the learning outcomes is clear					X		
The programme is coherent and all subjects and courses have been integrated					X		
The programme shows breadth and depth					X		
The programme clearly shows the basic courses, intermediate courses, specialised courses and the final project, thesis or dissertation					X		
The programme content is up-to-date					X		
Overall opinion	5.3						
<i>Criterion 4. Teaching and learning Strategy</i>							
The faculty or department has a clear teaching and learning strategy					X		
The teaching and learning strategy enables students to acquire and use knowledge academically					X		
The teaching and learning strategy is student oriented and stimulates quality learning					X		

The teaching and learning strategy stimulates action learning and facilitates learning to learn					X		
Overall opinion	5.0						
<i>Criterion 5. Student Assessment</i>							
Student assessment covers student entrance, student progress and exit tests					X		
The assessment is criterion-referenced					X		
Student assessment uses a variety of methods					X		
Student assessment reflects the expected learning outcomes and the content of the programme					X		
The criteria for assessment are explicit and well-known					X		
The assessment methods cover the objectives of the curriculum					X		
The standards applied in the assessment are explicit and consistent					X		
Overall opinion	5.0						
<i>Criterion 6. Academic Staff Quality</i>				X			
The staffs are competent for their tasks				X			
The staff are sufficient to deliver the curriculum adequately					X		
Recruitment and promotion are based on academic merits					X		
The roles and relationship of staff members are well defined and understood					X		
Duties allocated are appropriate to qualifications, experience and skills					X		
Staff workload and incentive systems are designed to support the quality of teaching and learning					X		
Accountability of the staff members is well regulated					X		
There are provisions for review, consultation, and redeployment					X		
Termination and retirement are planned and well implemented					X		
There is an efficient appraisal system					X		
Overall opinion	4.8						
<i>Criterion 7. Support Staff Quality</i>							
The library staff are competent and adequate in providing a satisfactory level of service				X			
The laboratory staff are competent and adequate in providing a satisfactory level of service					X		
The computer facility staff are competent and adequate in providing a satisfactory level of service					X		
The student services staff are competent and adequate in providing a				X			

satisfactory level of service							
Overall opinion	4.5						
Criterion 8. Student Quality							
There is a clear student intake policy					X		
The student admission process is adequate					X		
The actual study load is in line with the prescribed load					X		
Overall opinion	5.0						
Criterion 9. Student Advice and Support					X		
There is an adequate student progress monitoring system					X		
Students get adequate academic advice, support and feedback on their performance					X		
Mentoring for students is adequate					X		
The physical, social and psychological environment for the student is satisfactory					X		
Overall opinion	5.0						
Criterion 10. Facilities and Infrastructure							
The lecture facilities (lecture halls, small course rooms) are adequate					X		
The library is adequate and up-to-date					X		
The laboratories are adequate and up-to-date					X		
The computer facilities are adequate and up-to-date					X		
Environmental health and safety standards meet requirements in all aspects					X		
Overall opinion	5.0						
Criterion 11. Quality Assurance of Teaching and learning Process							
The curriculum is developed by all teaching staff members					X		
The curriculum development involves students					X		
The curriculum development involves the labour market					X		
The curriculum is regularly evaluated at reasonable time periods					X		
Courses and curriculum are subject to structured student evaluation					X		
Feedback from various stakeholders is used for improvement					X		
The teaching and learning process, assessment schemes, the assessment methods and the assessment itself are always subject to quality assurance and continuous improvement				X			
Overall opinion	4.9						
Criterion 12. Staff Development Activities							
There is a clear plan on the needs for training and development of					X		

both academic and support staff							
The training and development activities for both academic and support staff are adequate to the identified needs					X		
Overall opinion	5.0						
<i>Criterion 13. Stakeholders Feedback</i>							
There is adequate structured feedback from the labour market						X	
There is adequate structured feedback from the students and alumni.						X	
There is adequate structured feedback from the staff.					X		
Overall opinion	5.7						
<i>Criterion 14. Output</i>							
The pass rate is satisfactory and dropout rate is of acceptable level					X		
Average time to graduate is satisfactory					X		
Employability of graduates is satisfactory					X		
The level of research activities by academic staff and students is satisfactory					X		
Overall opinion	5.0						
<i>Criterion 15. Stakeholders Satisfaction</i>							
The feedback from stakeholders is satisfactory					X		
Overall opinion	5.0						
Overall verdict	5.0						

Ho Chi Minh City, 25th January 2016
Dean of Faculty of Vehicle and Energy and Engineering

PART IV

APPENDIX

List of evidence

Code	Name	Original
Criterion 1. Expected Learning Outcomes		
Exh. 1.1-01	Decision No. 558/QĐ-ĐHSPKT-ĐT dated 28 April 2012	
Exh. 1.1-02	Student handbook for school year 2008 - 2013	
Exh. 1.1-03	Articles 2, 6, 39 and 41 of Education Law in 2012	
Exh. 1.1-04	Surveys into Developing Learning Outcomes for Automotive Engineering Technology and Consolidated Results for the Years 2008, 2009, 2011, 2012, 2013, 2014	
Exh. 1.1-05	Section and faculty meeting minutes discussing and analyzing survey results to develop sets of Year 2010 and 2012 learning outcomes	
Exh. 1.2-01	Regulation on curriculum development	
Exh. 1.2-02	Student intake announcement and lists of students of the assessed programme already and currently enrolling postgraduate courses from 2010 up to now	
Exh. 1.2-03	Student intake announcement and lists of students of the assessed programme already and currently enrolling closely-relevant courses from 2010 up to now	
Exh. 1.2-04	Pictures of student group discussions	
Exh. 1.2-05	List of seminars	
Exh. 1.2-06	Decision and list of interns	
Exh. 1.2-07	Decision and list of students participating in Robocon, Eco-car, Fuel-saving car competitions	
Exh. 1.2-08	Automotive Engineering Technology Curriculum	
Exh. 1.2-09	Automotive Engineering Technology Curriculums applicable in the years of 2008, 2010, 2012	
Exh. 1.4-01	Decision on the establishment of Faculty's Scientific Board	
Exh. 1.4-02	Students and faculty's leaders meeting minutes	
Exh. 1.4-03	Minutes on curriculum modification	
Exh. 1.4-04	Sample survey on the level of HCMUTE students' response to job requirements	
Exh. 1.4-04	Questionnaire on curriculum development	
Exh. 1.4-05	Minutes on curriculum modification	
Exh. 1.4-06	Feedback form stakeholders	
Exh. 1.4-07	Minutes of meetings between FVE and stakeholders before and after the statement of ELOs	
Criterion 2. Programme Specification		
Exh. 2.2-01	Decision No. 558/QĐ-ĐHSPKT-ĐT dated 28 April	

	2012 regarding the issuance of learning outcomes of training programmes at university and college level according to CDIO framework	
Exh. 2.2-02	Programme learning outcomes (http://hcmute.edu.vn/ArticleId/2a45ec96-a3e2-4539-acd5-3f13720c4680/muc-tieu-dao-tao-va-chuan-dau-ra)	
Exh. 2.2-03	Programme specification; curriculum; ELOs	
Exh. 2.2-04	Teaching strategy	
Exh. 2.3-01	Academic Affairs Office website (http://aao.hcmute.edu.vn/)	
Exh. 2.3-02	Faculty website (http://fae.hcmute.edu.vn/)	
Exh. 2.3-03	Student handbook	
Exh. 2.3-04	Academic Affairs Office website (http://aao.hcmute.edu.vn/)	
Exh. 2.3-05	Faculty website (http://fae.hcmute.edu.vn/)	
Criterion 3. Programme Content and Structure		
Exh. 3.1-01	150-credit Automotive Engineering Technology Curriculum at university level	
Exh. 3.1-02	Automotive Engineering Technology Curriculum at university level	
Exh. 3.1-03	Academic programmes of some domestic and foreign institutions	
Exh. 3.1-04	Academic programmes over the year	
Exh. 3.1-04	Automotive Engineering Technology Curriculum at university level	
Exh. 3.2-01	HCMUTE's vision and mission	
Exh. 3.2-02	Faculty's vision and mission	
Exh. 3.3-01	Surveys into Employment after Graduation	
Exh. 3.3-02	Syllabi	
Exh. 3.3-03	Student handbook 2012	
Exh. 3.4-01	150-credit Automotive Engineering Technology Curriculum	
Exh. 3.4-02	Syllabi	
Exh. 3.4-03	150-credit Automotive Engineering Technology Curriculum	
Exh. 3.5-01	150-credit Automotive Engineering Technology Curriculum	
Exh. 3.5-02	Mapping of core courses	
Exh. 3.6-01	150-credit Automotive Engineering Technology Curriculum at university level with allocation of knowledge amount and areas	
Exh. 3.6-02	Students and faculty's leaders meeting minutes	

Exh. 3.6-03	List of research topics of students in the years of 2013, 2014	
Exh. 3.7-01	Minutes on curriculum modification in the years of 2010, 2012	
Exh. 3.7-02	CDIO-based learning outcomes	
Exh. 3.7-03	MOET's Programme Framework	
Exh. 3.7-04	Syllabus modification	
Criterion 4. Teaching and Learning Strategy		
Exh. 4.1-01	Regulation No. 117 concerning learning and teaching methodology renewal of Ho Chi Minh University of Technology and Education	
Exh. 4.1-02	Introduction to Automotive Engineering Technology syllabus	
Exh. 4.1-03	Graduation products and projects by students	
Exh. 4.3-01	Lecture portfolios of some courses applying simulation tools	
Exh. 4.3-02	Some online lecture videos	
Exh. 4.3-03	Photos of the laboratory with state-of-the-art equipment, AVL	
Exh. 4.3-04	Prizes at Robocon competitions	
Exh. 4.3-05	Photos of seminars and workshops with enterprises and organizations	
Exh. 4.3-06	Photos and prizes of some teams at Eco-car competitions	
Exh. 4.3-07	Student products from lab work	
Exh. 4.3-08	Student scientific research prizes	
Exh. 4.4-01	Teacher observation minutes	
Exh. 4.4-02	Statistics of course evaluation by students from 2010-2015	
Criterion 5. Student Assessment		
Exh. 5.1-01	Student intake regulation	
Exh. 5.1-02	2015 university and college student intake proposal	
Exh. 5.1-03	Decision No. 210/ĐHSPKT-TS2012 regarding standard intake scores of university entrance exam dated 8 August 2012 applied for first choice candidates of Groups A, A1, B, D1, V	
Exh. 5.1-04	Decision No. 601/ĐHSPKT-TS2013 regarding standard intake scores of university entrance exam dated 8 August 2013 applied for first choice candidates of Groups A, A1, B, D1, V	
Exh. 5.1-05	Decision No. 665/ĐHSPKT-TS2014 regarding standard intake scores of university entrance exam dated 9 August 2014 applied for first choice candidates of Groups A, A1, B, D1, V	
Exh. 5.1-06	Decision No. 4/QĐ-TT/ĐHSPKT-CTHSSV on receiving freshman students for school year 2014-2015	
Exh. 5.1-07	Announcement No. 50/TB-ĐHSPKT-TS2014 dated 14 April 2014 on direct admission and priorities for direct admission to	

	mainstream colleges and universities y policy	
Exh. 5.1-08	Announcement No. 500 regarding the plan to classify 2014 freshman students' English level proficiency	
Exh. 5.1-09	Announcement No. 507 regarding the plan to hold English proficiency exam of 2014 freshman students	
Exh. 5.1-10	Syllabi of some courses in Automotive Engineering Teachnology programme	
Exh. 5.1-11	Products of some capstone projects by students	
Exh. 5.1-12	Regulation No. 43 regarding the completion of an academic programme	
Exh. 5.1-13	Regulation on doing capstone projects for students	
Exh. 5.1-14	Decision on establishing a defense board of captone projects	
Exh. 5.1-15	List of topics and board members of graduation thesis defense	
Exh. 5.1-16	Evaluation rubrics for graduation theses	
Exh. 5.2-01	Syllabi of some courses in Automotive Engineering Technology programme	
Exh. 5.2-02	Regulation No. 43 regarding grading scores for student assessment by Office of Academic Affairs	
Exh. 5.2-03	Grading scores for projects and presentations	
Exh. 5.3-01	Statistics of different assessment methods and corresponding weights (Syllabi of some courses in Automotive Engineering Teachnology programme)	
Exh. 5.3-02	List of topics, defense board members of projects and captone projects	
Exh. 5.3-03	Decision No. 354 on scoring student community services	
Exh. 5.3-04	Guideline No. 356 on adjusting encouragement scholarships for students	
Exh. 5.4-01	Porfolios of lectures on some Automotive Engineering Technology courses	
Exh. 5.4-02	Laboratory and workshop regulation	
Exh. 5.4-03	Guideline to mark presentations and reports (soft skills) in details	
Exh. 5.5-01	CDIO framework programme for Automotive Engineering Technology	
Exh. 5.5-02	Syllabi of some courses in Automotive Engineering Teachnology programme	
Exh. 5.5-03	Guideline to mark presentations and reports in details	
Exh. 5.6-01	Mapping teaching contents with learning outcomes (lecture porfolios)	
Exh. 5.6-02	Mapping tests and assessment with learning outcomes (lecture	

	portfolios)	
Exh. 5.6-03	Procedure of test paper preparation	
Exh. 5.7-01	Faculty regulation on test papers and answer keys	
Exh. 5.7-02	Procedure of marking test papers and re-marking	
Exh. 5.7-03	Student handbooks for academic years 2013, 2014, 2015 regulating graduation reviews (http://aao.hcmute.edu.vn/ArticleId/74cdc3f9-f289-4c9a-8f30-b4e04b2bdf44/dieu-kien-bo-sung-xet-va-cong-nhan-tot-nghiep-doi-voi-sinh-vien-he-dhcq-khoa-2012-tro-di)	
Exh. 5.7-04	Regulation on classification of graduates by Office of Academic Affairs	
Criterion 6. Academic Staff Quality		
Exh. 6.1-01	Appendix: Profiles of all lecturers of the faculty teaching this curriculum, including CV, diplomas, list of scientific research topics and list of publication	
Exh. 6.1-02	Regulation and conditions of employment	
Exh. 6.1-03	Employment process	
Exh. 6.1-04	The university's employment process and criteria	
Exh. 6.1-05	List of training courses for teaching staff during the period 2010-2015 inside and outside the university with the presence of the faculty's lecturers, including full names and certificates	
Exh. 6.1-06	Registration for education enhancement of the faculty	
Exh. 6.1-07	Report on education enhancement results	
Exh. 6.2-01	Teaching staff recruitment proposal of the faculty	
Exh. 6.2-02	List of successful candidates for period from 2001-2014: file excel 03 attached	
Exh. 6.2-03	HR development plans and strategies for 2005-2010; 2010-2015; 2015-2020	???
Exh. 6.3-01	Decision No. 358/QĐ-ĐHSPKT-TCCB dated 17 March 2014 on appointing staff to mentor apprentice teachers	
Exh. 6.3-02	Section's remarks of activities done by apprentice teachers	
Exh. 6.3-03	- Remarks by apprentice teacher's mentor - Regulation No. 318/QĐ – ĐHSPKT – TCCB dated 17 November 2010 on duties and conditions to terminate probation period	
Exh. 6.3-04	Decision No. 08/QĐ-ĐHSPKT-TCCB regarding the appointment of teaching staff into lecturer position; attached list of lecturers	
Exh. 6.3-05	Section's and Faculty's annual minutes (on annual emulator appointment)	
Exh. 6.3-06	Decision on emulation and rewards of the year 2013—2014	
Exh. 6.3-07	Decision on raising salary level and seniority remuneration of	

	cardes and staff in 2013	
Exh. 6.3-08	Decision on payrise prior to schedule	
Exh. 6.3-09		
Exh. 6.4-01	Regulation No. 42/QĐ-ĐHSPKT-TCCB dated 09 April 2013 regarding standards for HCMUTE lecturers	
Exh. 6.4-02	The faculty's organizational chart	
Exh. 6.4-03	The faculty's organizational chart	
Exh. 6.4-04	Description of rights and duties of each member in the faculty, section and teaching staff	
Exh. 6.4-05	Decision No. 358/QĐ-ĐHSPKT-TCCB dated 17 March 2014 on appointing staff to mentor apprentice teachers	
Exh. 6.5-01	Syllabi	
Exh. 6.5-02	Allocation of teaching load every semester	
Exh. 6.5-03	Decision No. 612/QĐ-ĐHSPKT-TCCB dated 30 June 2014 regarding the issuance of Guidelines on emulation and rewards	
Exh. 6.5-04	Regulation No. 279/QĐ-ĐHSPKT-ĐT on teaching assistants (TA regulation)	
Exh. 6.6-01	Statistics of teaching staff's workload (teaching, research and service)	
Exh. 6.6-02	Report of personal achievements	
Exh. 6.6-03	Faculty's evaluation on teaching staff	
Exh. 6.6-04	Student evaluation on teaching staff by courses	
Exh. 6.6-05	KPIs applied at HCMUTE (issued together with Regulation No. 279/ ĐHSPKT-QTCL)	
Exh. 6.6-06	Forms of KPIs <ul style="list-style-type: none"> - FORM No. 05/KH. MTCL (Section) - FORM No. 06/ĐGCN (individual evaluation) 	
Exh. 6.7-01	Higher Education Law No. 08/2012/QH13 dated 18 June 2012	
Exh. 6.7-02	Regulations on the functions and duties of lecturers Description of functions and duties of lecturers	
Exh. 6.7-03	KPIs applied at HCMUTE (issued together with Regulation No. 279/ ĐHSPKT-QTCL)	
Exh. 6.7-04	Consolidated report on teaching and examination regulation violations – AY: 2013-2014 (TTGD- 23/6/2014) KPIs forms	
Exh. 6.7-05	Announcement No. 47/TB-TCCB dated 16 September 2014 on IELTS test results on 06 and 09 September 2014; IELTS test result in September 2014; consolidated test result attached	

Exh. 6.7-06	Report of individual performance	
Exh. 6.7-07	Decision on payrise prior to schedule of the faculty's lecturers	
Exh. 6.7-08	Regulation No. 23/QĐ-ĐHSPKT-ĐT on preparing and performing the teaching of courses within 150-credit curriculum according to CDIO framework	
Exh. 6.7-09	Lecture portfolios of some courses	
Exh. 6.7-10	Term-end 150-credit course teaching performance report to the faculty	
Exh. 6.7-11	Some correlation matrix between ELOs and assessment methods	
Exh. 6.7-12	Announcement No. 25/TB-ĐHSPKT-TCCB dated 11 April 2013 on fostering lecturers practising active teaching and assessment methods	
Exh. 6.7-13	Structure teaching software, automobile system simulation software	
Exh. 6.7-14	Teacher observation minutes	
Exh. 6.7-15	Schedule of section's observations	
Exh. 6.7-16	Teacher observation procedures	
Exh. 6.7-17	Statistics of course evaluation by student for 2010-2015 period	
Exh. 6.8-01	Schemes No. 05/KH-ĐUK and No. 227/KH-ĐU dated 20 August 2013 on planning leaders for Communist Party local level and planning the university's managers up to 2020 and onwards	
Exh. 6.8-02	The faculty's strategic development plan	
Exh. 6.9-01	Circular No. 47/2014/TT-BGDĐT regulating working regimes of lecturers	
Exh. 6.9-02	Decree No. 46/2010/NĐ-CP of the Government regulating labor contract termination and retirement of governmental officers	
Exh. 6.9-03	Decree No. 141/2013/NĐ-CP regulating in details and giving guidelines on the implementation of some articles of Higher Education Law	
Exh. 6.9-04	The university's regulation on regimes towards retirees	
Exh. 6.9-05	Decisions on retirement of some lecturers of the faculty	
Exh. 6.9-06	Decision No. 475/QĐ-ĐHSPKT-TCCB dated regarding the issuance of regulations on appointing, re-appointing, resigning, dismissing managers and leaders at the offices and faculties of HCMUTE	
Exh. 6.10-01	Guideline on the implementation of KPIs and E-Office systems	
Exh. 6.10-02	Announcement regarding the preparation of KPIs plans KPIs forms: - FORM no. 05/KH. MTCL (Section) - FORM no. 06/ĐGCN (individual assessment)	

	<ul style="list-style-type: none"> - FORM no. 04/KHHK(Faculty) - FORM no. 06/KHHK (personal plan) Guideline on emulation and rewards	
Exh. 6.10-03	Faculty's annual rewarding proposal Prior schedule payrise proposal	
Exh. 6.10-04	<ul style="list-style-type: none"> - Decision No. 612/ QĐ-ĐHSPKT-TCCB regarding the issuance of emulation and rewards - Decision on raising salary levels and seniority remuneration towards cadres and staff in 2014 - Decision on emulation title recognition 	
Criterion 7. Support Staff Quality		
Exh. 7.0-01	Decision on forming the team of advisors	
Exh. 7.0-02	The new recruitment and staff development	
Exh. 7.1-01	List of library staff	
Exh. 7.1-02	Organizational chart, functions and duties of library	
Exh. 7.1-03	2013 – 2018 staff development scheme	
Exh. 7.1-04	2014 – 2015 quality objectives, 2014 – 2015 registration for education enhancement	
Exh. 7.1-05	List of training seminars and professional workshops	
Exh. 7.1-06	Results of periodical surveys into book types and methods for service quality improvement	
Exh. 7.1-07	http://lib.hcmute.edu.vn/	
Exh 7.1-08	https://www.facebook.com/hcmute.lib?fref=ts	
Exh. 7.2-01	Statistics and description of laboratories, workshops serving the academic programme	
Exh. 7.3-01	Regulation on the functions and duties of Computer and Network Center	
Exh. 7.3-02	Report on satisfaction level of clients towards service quality of Computer and Network Center	
Exh. 7.4-01	Report on satisfaction level of clients towards service quality of functional offices	
Criterion 8. Student Quality		
Exh. 8.1-01	Student admission regulation of MOET applicable to universities and colleges	
Exh. 8.1-02	Announcement No. 33/TB-ĐHSPKT-CTHSSV on the admission of university, college, vocational mainstream students in 2014	
Exh. 8.1-03	Decision No. 210/ĐHSPKT-TS2012 regarding standard intake scores of university entrance exam dated 8 August 2012 applied for first choice candidates of Groups A, A1, B, D1, V	
Exh. 8.1-04	Decision No. 601/ĐHSPKT-TS2013 regarding standard intake scores of university entrance exam dated 8 August 2013 applied	

	for first choice candidates of Groups A, A1, B, D1, V	
Exh. 8.1-05	Decision No. 665/ĐHSPKT-TS2014 regarding standard intake scores of university entrance exam dated 9 August 2014 applied for first choice candidates of Groups A, A1, B, D1, V	
Exh. 8.1-06	Organizing the university campus tours and job orientation in 2014	
Exh. 8.1-07	Leaflets and posters of Automotive Engineering Technology admission programme	
Exh. 8.1-08	Open day programme of the Faculty	
Exh. 8.1-09	Job fairs and Employment Exchange	
Exh. 8.1-10	List of successful candidates of the 2010-2011 university/college entrance exams	
Exh. 8.1-11	List of successful candidates of the 2011-2012 university/college entrance exams	
Exh. 8.1-12	List of successful candidates of the 2012-2013 university/college entrance exams	
Exh. 8.1-13	List of successful candidates of the 2013-2014 university/college entrance exams	
Exh. 8.1-14	List of successful candidates of the 2014-2015 university/college entrance exams	
Exh. 8.2-01	Decision No. 357/QĐ-TT/ĐHSPKT-CTHSSV on receiving freshman students for school year 2014-2015 on 9 August 2014	
Exh. 8.2-02	Guidance on admission procedures to students of academic year 2014	
Exh. 8.2-03	Plan No. 116/KH-ĐHSPKT-CTHSSV on organizing introductory week for academic year 2013-2014	
Exh. 8.2-04	Schedule of term beginning activities and health check-up for students of academic year 2013	
Exh. 8.2-05	Plan No. 357/KH-ĐHSPKT-CTHSSV on receiving freshmen of academic year 2014 on 9 August 2014	
Exh. 8.2-06	Plan No. 358/KH-ĐHSPKT-CTHSSV organizing introductory week for academic year 2014-2015	
Exh. 8.2-07	Schedule of term beginning activities for academic year 2014-2015	
Exh. 8.3-01	Decision No. 43/2007/QĐ-BGDĐT dated 15 August 2007 regarding the issuance of credit-based training regulations at mainstream college and university level	
Exh. 8.3-02	Guiding document on the implementation of the credit-based training regulations at mainstream college and university level in December 2008	
Exh. 8.3-03	Student handbook of 2008	
Exh. 8.3-04	Student handbook of 2008	
Exh. 8.3-05	Syllabi	
Exh. 8.3-06	Student handbook of 2012	
Exh. 8.3-07	Student handbook of 2012	

Exh. 8.3-08	Decision on the establishment of FVE advisory team	
Exh. 8.3-09	Scheme No. 192/KH-ĐHSPKT-CTHSSV on organizing the meeting between faculty and university leaders and students on 14 November 2013 – Term I – Academic year: 2013- 2014	
Exh. 8.3-10	Announcement No. 232/TB/ĐHSPKT/CTHSSV regarding the consolidation of student feedback (Term I/ 2013- 2014) on 10 December 2013	
Exh. 8.3-11	Announcement No. 260/TB-ĐHSPKT-CTHSSV regarding the conclusions and directives of the University President on solutions to problems raised by students at university leader-student meeting on 10 December 2013 – Term I/Academic year: 2013-2014	
Exh. 8.3-12	Student handbook 2012, Regulation on course registration	
Exh. 8.3-13	Student handbook 2012, Study planner of Automotive Engineering Technology students	
Criterion 9. Student Advice and Support		
Exh. 9.1-01	Duties of Office of Academic Affairs	
Exh. 9.1-02	Statistics of learning outcomes and student classifications	
Exh. 9.1-03	Student database system	
Exh. 9.1-04	Duties of Admissions and Student Affairs Office	
Exh. 9.1-05	Announcement No. 279 regarding the implementation of evaluating community services by students	
Exh. 9.1-06	Decision No. 321 regarding the acceptance of the scores on community services by mainstream students at HCMUTE	
Exh. 9.1-07	Announcement No. 374 on evaluating community services by students – Term II/ AY 2013-2014	
Exh. 9.1-08	Duties of faculty secretary	
Exh. 9.2-01	Decision No. 44 on study encouragement scholarships towards students at specialized and gifted high schools, higher education institutions and vocational schools directly belonging to the national education system	
Exh. 9.2-02	Guideline No. 348 regarding the issuance of study encouragement scholarships for students	
Exh. 9.2-03	Decision No. 389 regarding the issuance of advisory work regulation	
Exh. 9.2-04	Announcement No. 390 on advisory teams	
Exh. 9.2-05	Duty allocation to advisors of Faculty of Vehicle and Energy Engineering	
Exh. 9.2-06	Faculty's management board and student meeting	
Exh. 9.3-01	Announcement on conducting capstone projects	
Exh. 9.3-02	Duty allocation to advisors of Faculty of Vehicle and Energy Engineering	
Exh. 9.3-03	Decision No. 389 regarding the issuance of advisory work regulation	
Exh. 9.3-04	Announcement No. 390 on advisory teams	
Exh. 9.3-05	Duty allocation to advisors of Faculty of Vehicle and Energy Engineering	

Exh. 9.4-01	Decision No. 389 regarding the issuance of advisory work regulation	
Exh. 9.4-02	Announcement No. 390 on advisory teams	
Exh. 9.4-03	Announcement No. 36 regarding the duty allocation for the implementation of Student Union programmes- Academic year: 2014-2015	
Exh. 9.4-04	Consolidated report on HCMC Communist Youth and Student Unions- Academic year: 2012-2013	
Exh. 9.4-05	Plan on introductory week for academic years: 2011-2012, 2012-2013, 2013-2014, 2014-2015, 2015-2016	
Exh. 9.4-06	List of major transfer for health matter	
Exh. 9.4-07	Physical education exemption	
Exh. 9.4-08	Channels of student feedback receipts and responses	
Criterion 10. Facilities and Infrastructure		
Exh. 10.1-01	Report on facility and infrastructure of the university to MOET- Academic years: 2009-2010; 2010-2011; 2011-2012; 2013-2014	
Exh. 10.1-02	Consolidation of classrooms year ended 2015 – Blocks: A,B, C,D,E, E1 List of lecture halls and classrooms (including information on microphone, conditioning or free of classifications by size, etc.)	
Exh. 10.1-03	Projected expenses on renovation, repairs and acquisition for the year 2014	
Exh. 10.1-04	Annual acquisition plan of FVE	
Exh. 10.1-05	Website: http://online.hcmute.edu.vn	
Exh. 10.1-06	All-campus Wifi map	
Exh. 10.2-01	List of student-accessible online resources	
Exh. 10.2-02	Library website: http://lib.hcmute.edu.vn/	
Exh. 10.2-03	E-mails from library to individuals (ref. A book a day) Collection of 123 electronic coursebooks of HCMUTE	
Exh. 10.2-04	Number of book entries of FVE, specialized books, coursebooks, lectures being supplemented every year List of Automotive Engineering Technology materials and document	
Exh. 10.2-05	List of Vehicle and Energy Engineering books in foreign languages	
Exh. 10.2-06	Regulation on the library's opening time, regulation on the uses of library services Announcement on guiding students to choose coursebooks and learning materials- Term II/Academic year: 2013-2014 and Term I/ Academic year: 2014-2015	
Exh. 10.2-07	Plan on library resource development and update	
Exh. 10.2-08	Regulation on coursebook compilation and publication Regulation on referential material supplementation	
Exh. 10.3-01	List of workshops and laboratories of FVE	
Exh. 10.3-02	Annual equipment repair and acquisition plan of FVE	
Exh. 10.3-03	Annual equipment and tool sponsorship by TOYOTA and other enterprises	
Exh. 10.3-04	Procedure on equipment maintenance and repairs	
Exh. 10.3-05	Procedure on calibration	

Exh. 10.3-06	Annual equipment acquisition and repair plan of FVE	
Exh. 10.3-07	Procedure on tool and supply acquisition; Procedure on investment project preparation	
Exh. 10.3-08	Report on efficiency of equipment use	
Exh. 10.4-01	Decision on approval of investment project and estimates of “Developing networks, servers, filing and data privacy systems”	
Exh. 10.4-02	E-mails of individuals and entities of HCMUTE- mail .hcmute.edu.vn	
Exh. 10.4-03	Course registration website (http://online.hcmute.edu.vn/)	
Exh. 10.4-04	Evidence on Pearson’s sponsorship to Digital learning center; Academic year: 2013-2014	
Exh. 10.4-05	http://online.hcmute.edu.vn/ http://hcmute.edu.vn/ http://fae.hcmute.edu.vn/	
Exh. 10.4-06	Edusoft (for AAO’s use)	
Exh. 10.4-07	All-campus Wifi map	
Exh. 10.4-08	Software : AVL Booster, Matlab (for FVE’s current use)	
Exh. 10.4-09	Software: Atech 3610, Atech 3631, TOYOTA Electric, TOYOTA L652, (for FVE’s current use)	
Exh. 10.5-01	Regulation of FVE’s laboratories	
Exh. 10.5-02	Equipment maintenance schedule Announcement No. 131/TB-ĐHSPKT dated 25 August 2014 regarding the faculties and offices’ preparation of filing documents and examination of fire prevention and extinguishing, equipment maintenance	
Exh. 10.5-03	Laboratory regulations; Workshop regulations of FVE	
Exh. 10.5-04	Fire prevention and extinguishing layout at workshops List of fire extinguishers to be recharged and fire extinguisher replacement supplies (issued together with Decision No. 727/QĐ-ĐHSPKT-HCTH dated 25 July 2014)	
Exh. 10.5-05	Decision No. 438/QĐ-ĐHSPKT-TCCB dated 16 April 2014 on strengthening fire prevention and protection platoon of HCMUTE	
Exh. 10.5-06	Laboratory regulations; Workshop regulations of FVE	
Exh. 10.5-07	Plan No. 106/KH-UBND dated 18 December 2012 on rat eradication of Linh Chieu Ward; Plan dated 20 December 2012 of Healthcare Center regarding the co-ordination in mouse eradication and epidemics prevention; Announcement dated 21 December 2012 on Rat killer use for epidemics prevention; 1 st announcement dated 22 December 2012 on Rat body collection and treatment for epidemics prevention 2013 Epidemics Prevention Plan dated 03 April 2013	
Exh. 10.5-08	Minutes on 3rd examination of food hygiene and safety in 2011 by Inspection Board of HCMC Health Service: Campus canteen (No. 331/BB-TTra), Cafeteria (No. 280/BB-TTra) and Block D dormitory canteen (No. 312/BB-TTra), 2 nd floor supermarket (No. 250/BB-TTra). Minutes No. 38/Đ1/2014 dated 26 May 2014 of Food Hygiene and	

	Safety Department on the examination of food safety conditions applied for canteens providing catering services; collective kitchens; kitchens of restaurants in hotels, resorts and separate restaurants – Cafeteria ; Canteen Block A and Block D canteens of HCMUTE	
Exh. 10.5-09	Contract No. 72/HĐ-YTDP dated 15 May 2014 on spraying pesticides; 1st Acceptance minutes dated 9 June 2014. Standing order dated 11 June 2014.	
Criterion 11. Quality Assurance of Teaching and Learning Process		
Exh. 11.1-01	Workshop on the curriculum	
Exh. 11.1-02	Procedure on the curriculum development and modification – 2005	
Exh. 11.1-03	Workshop on the curriculum	
Exh. 11.1-04	Minutes on the curriculum of FVE's Scientific Board and curriculum development of FVE's sections	
Exh. 11.1-05	Minutes on preliminary term-end and year-end review meetings	
Exh. 11.2-01	Survey into course evaluation by students	
Exh. 11.2-02	Leader-student meeting minutes	
Exh. 11.2-03	Survey into curriculum evaluation by graduates	
Exh. 11.3-01	Minutes on curriculum design workshop	
Exh. 11.3-02	List of FVE's Scientific Board members	
Exh. 11.3-03	FVE's traditional reunion	
Exh. 11.3-04	Evidence on the engagement of labor market into academic programme design (surveys, workshops, alumni's meetings, etc.); instruments and procedures;	
Exh. 11.4-01	Survey into teaching staff's performance evaluation by students (both theoretical and practical courses)	
Exh. 11.4-02	Course-by-course evaluation of lecturers in charge	
Exh. 11.5-01	Plan on leader-student meetings at faculty level and university level	
Exh 11.5-02	Decision No. 38/QĐ-ĐHSPKT-ĐT dated 14 April 2008 regarding the regulations on conducting surveys into teaching staff's performance evaluation by students	
Exh. 11.5-03	Announcement No. 54/TB-ĐHSPKT-ĐBCL dated 08 May 2014 on conducting surveys into teaching staff's performance evaluation by students – Term: 2013-2014; Guideline on conducting surveys into teaching staff's performance evaluation by students	
Exh. 11.5-04	Survey into teaching staff's performance evaluation by students (both theoretical and practical courses)	
Exh. 11.5-05	Report No. 08/BC-ĐBCL dated 15 July 2014 regarding survey results of teaching staff's performance evaluation by students	
Exh. 11.5-06	Plan No. 130/KH/ĐHSPKT dated 15 November 2012 regarding comprehensive quality assurance during the implementation of 150-credit curriculum, accompanied by report No. 76/BC-QLCL dated 4 May 2013 concerning the realization of Plan No.130	
Exh. 11.6-01	Report on teaching quality based on surveys	
Exh. 11.6-02	Comparison of teaching quality results through 9 different surveys	
Exh. 11.6-03	Plan for improvements of FVE after survey statistic treatment and analysis	

Exh. 11.6-04	Result of FVE alumni's feedback	
Exh. 11.6-06	Regulations on functions and duties of Public Relations Office	
Exh. 11.7-01	Decision No. 674/QĐ- ĐHSPKT-TCCB dated 26 August 2008 on the establishment of Quality Management Office and decision on renaming QMO into Quality Assurance Office	
Exh. 11.7-02	Quality Assurance Office website	
Exh. 11.7-03	<i>Decision No. 1245/QĐ-ĐHSPKT-TCCB dated 10 Decision 2013 regarding the establishment of Programme Self-Assessment Board according to AUN standards</i>	
Exh. 11.7-04	<i>Decision No. 730/QĐ/ĐHSPKT-TCCB dated 26 August 2014 regarding the establishment of support teams for programme assessment according to AUN standards</i>	
Exh. 11.7-05	<i>Minutes of Programme Periodical Assessment Meeting</i>	
Exh. 11.7-06	Term-end examination regulation	
Exh. 11.7-07	Procedure on test paper preparation and approval, Exh 11.7-08, Sample of test papers	
Exh. 11.7-08	Inspection of teaching regulation compliance – 2010	
Exh. 11.7-09	Teacher observation regulation – 2007	
Exh. 11.7-10	Report on the inspection of teaching regulation compliance – Term HKI- Academic year: 2012-2013, Weeks 12, 13, 14, 15	
Exh. 11.7-11	Comparison of teaching quality reports by semester and by academic year ((as evidence for the use of survey results for improvement))	
Criterion 12. Staff Development Activities		
Exh. 12.1-01	Decision on English learning in the Philippines	
Exh. 12.1-02	Announcement on English proficiency test	
Exh. 12.1-03	List of HEEAP participants	
Exh. 12.1-04	Academic programme updates:	
Exh. 12.2-05	<p>a. Announcement No. 129/TB-ĐHSPKT-TCCB dated 02 December 2011 regarding the approval of 5- year staff development plan of HCMUTE for 2011-2015 phase; accompanied by Consolidation of staff development plans for 2011-2015 phase (Table 1); Consolidation of staff development plans by faculties, centers and technical and vocational high school (Table 2); Consolidation of staff development plans by functional offices (Table 3) (original copies filed at ADAO).</p> <p>b. Announcement No. 73TB-ĐHSPKT-TCCB dated 28 July 2009 regarding the approval of PhD training plan for 2009 – 2013 phase; accompanied by the list of registrants for PhD studies for 2009-2013 phase.</p> <p>c. Announcement No. 131/TB-ĐHSPKT-TCCB dated 02 December 2011 regarding the approval of PhD training plan for 2011 – 2015 phase; accompanied by the list of registrants for PhD studies for 2011-2015 phase.</p> <p>d. Announcement No. 132/TB-ĐHSPKT-TCCB dated 02 December 2011 regarding the expertise and professional training and fostering plan for academic year 2011 – 2012; accompanied by the approval of MA and PhD training plan and fostering plan for academic year 2011-2012; Consolidation of training plans for academic year 2011-2012; Consolidation of expertise and professional training and fostering plans for</p>	

	<p>academic year 2011-2012; (Original copies filed in ADAO)</p> <p>e. Announcement No. 124/TB-ĐHSPKT-TCCB dated 01 November 2012 regarding the expertise and professional training and fostering plan for academic year 2012 – 2013; List of registrants for MA and PhD studies for academic year 2012-2013; Consolidation of MA and PhD training plan and fostering plan for academic year 2012-2013.</p> <p>f. Announcement No. 117/TB-ĐHS PKT-TCCB dated 29 August 2013 regarding the approval of expertise and professional training and fostering plan for academic year 2013 – 2014; Consolidated list of fostering course participants for academic year 2013-2014; Consolidated lists of trainees for academic years 2013-2014 and 2013-2014.</p>	
Exh. 12.1-06	Incentive policy for lecturers with local and international publication	
Exh. 12.1-07	Decisions on assigning staff to short courses (TOYOTA...)	
Exh. 12.1-08	Plan on academic presentations	
Exh. 12.1-09	Courses of Higher Education Teaching Theory, Higher Education Pedagogical Practices	
Exh. 12.2-01	Short-term training courses in India (ITEC programme)	
Exh. 12.2-02	Courses of VEF (Announcements from QLKH - QHQT)	
Exh. 12.2-03	International scholarships	
Exh. 12.2-04	List of E/M Learning trainees	
Exh. 12.2-05	Announcement on Effective Management course for managers and list of participants	
Criterion 13. Stakeholders Feedback		
Exh. 13.1-01	Questionnaire into students' responding to job requirements	
Exh. 13.1-02	Enterprise survey results on HCMUTE students' responding to job requirements – Term 2 – Academic year 2013-2014	
Exh. 13.1-03	Announcement on reviewing list of equivalent courses	
Exh. 13.1-04	"Evaluation on student satisfaction during the course" process	
Exh. 13.2-01	Decision No. 879/QĐ-ĐHSPKT-TCCB dated 10 October 2013 regarding the finalization of organizational structure of Alumnus Liasion Board	
Exh. 13.2-02	List of FVE alumni	
Exh. 13.2-03	Photos of FVE alumnus reunion	
Exh. 13.2-04	Questionnaire to FVE alumni	
Exh. 13.2-05	Report of FVE Alumnus Association	
Exh. 13.2-06	http://danhgia.hcmute.edu.vn	
Exh. 13.2-07	Questionnaire to graduates	
Exh. 13.2-08	Plan on the organization of graduation ceremony in March 2015	
Exh. 13.2-09	Graduate survey results in March 2014	
Exh. 13.2-10	Consolidation of survey results from Automotive Engineering Technology graduates in June 2014	
Exh. 13.2-11	FVE term-end review meeting minutes	
Exh. 13.2-12	Circular No. 1276/BGDĐT on conducting surveys into teaching staff's performance evaluation by students	
Exh. 13.2-13	Decision No. 38/QĐ-ĐHSPKT-ĐT dated 14 April 2008 on gathering student feedback on teaching staff's performance	
Exh. 13.2-14	Announcement No. 54/TB-ĐHSPKT-ĐBCL on gathering student	

	feedback on teaching staff's performance – Term 2, AY 2013-2014]	
Exh. 13.2-15	Guideline on conducting surveys into teaching staff's performance evaluation by students	
Exh. 13.2-16	Questionnaire teaching staff's performance evaluation by students (theoretical courses)	
Exh. 13.2-17	Questionnaire teaching staff's performance evaluation by students (practical courses)	
Exh. 13.2-18	Survey results of teaching staff's performance evaluation by students – Term II/ AY 2014-2015	
Exh. 13.2-19	Individual performance report – Term 2 /AY 2013 -2014	
Exh. 13.2-20	FEV leader-student meeting minutes – Term 2/ AY 2013 -2014	
Exh. 13.2-21	President's directives on repoding to questions raised by students at leader-student meeting- Term I/AY 2014-2015	
Exh. 13.2-22	Report of survey results on teaching staff's performance evaluation by students – Term II/ AY 2014-2015	
Exh. 13.3-01	Plan No. 74/TB-ĐHSPKT-TCCB on the organization annual management conference – Summer 2014	
Exh. 13.3-02	Young staff conference plan – AY 2014-2015	
Exh. 13.3-03	Staff survey results conducted by ADAO – Term II/AY 2013-2014	
Criterion 14. Output		
Exh. 14.1-01	Decision No. 43/2007/QĐ-BGDĐT dated 15 August 2007 regarding the issuance of credit system-based training regulations at mainstream college and university level	
Exh. 14.1-02	Regulation on academic affairs, score management software	
Exh. 14.1-03	Graduation rate	
Exh. 14.1-04	Drop-out rate	
Exh. 14.1-05	Student dismissal process	
Exh 14.1-06	Decisions on establishing advisory teams _ Decision No. 389/QĐ-ĐHSPKT-CTHSSV dated 19 September 2014 regarding the issuance of student advisory regulation;	
Exh. 14.2-01	Decision No. 43/2007/QĐ-BGDĐT dated 15 August 2007 regarding the issuance of credit system-based training regulations	
Exh. 14.2-02	Consolidated list of ahead-of-schedule graduates, rewards to ahead-of-schedule graduates of FVE (in the last 5 years)	
Exh. 14.2-03	Regulation on awarding ahead-of-schedule graduates	
Exh. 14.2-04	Graduation/drop-out rates	
Exh. 14.2-05	Academic year study plan	
Exh. 14.2-06	List of workshops	
Exh. 14.2-07	List of equivalent courses	
Exh. 14.2-08	Announcement by AAO on course registration and changes in course registration	
Exh. 14.2-09	Announcement No. 06/ĐKMH-ĐT 2014 dated 6 January 2014 regarding the schedule of course registration and course adjustment online – Term 2/ AY 2013-2014	
Exh. 14.3-01	Consolidated graduate survey result	
Exh. 14.3-02	Consolidated graduate survey result	
Exh. 14.3-03	FVE Alumni's traditional reunion	
Exh. 14.3-04	Survey result from graduates in pursuit of MA and PhD courses held by FVE	

Exh. 14.4-01	List of local and international publication by FVE staff (for 5 years)	
Exh. 14.4-02	List of research topics by FVE staff at MOET level (for 5 years)	
Exh. 14.4-03	List of research topics by FVE staff at university level (for 5 years)	
Exh. 14.4-04	List of research topics by FVE students (for 5 years)	
Exh. 14.4-05	List of supervisors of student researchers over the years	
Exh. 14.4-06	FVE research prizes (for 5 years)	
Criterion 15. Stakeholders Satisfaction		
Exh. 15.1-01	http://fae.hcmute.edu.vn	
Exh. 15.1-02	Guideline on conducting surveys into teaching staff's performance evaluated by students	
Exh. 15.1-03	Questionnaire into teaching staff's performance evaluated by students (theoretical courses)	
Exh. 15.1-04	Questionnaire into teaching staff's performance evaluated by students (practical courses)	
Exh. 15.1-05	Report on survey results of teaching staff's performance evaluated by students – Term II/AY 2013-2014	
Exh. 15.1-06	Report on survey results of five teaching staff's performance evaluated by students – Term II/AY 2011-2012	
Exh. 15.1-07	Survey result of teaching staff's performance evaluated by students – individual	
Exh. 15.1-08	Report on survey results of teaching staff's performance evaluated by students – Term II/AY 2013-2014	
Exh. 15.1-09	Expertise and professional training plan/ AY 2014-2015	
Exh. 15.2-01	Survey result of graduates in March 2014	
Exh. 15.2-02	Consolidated feedback from graduates in March 2014	
Exh. 15.2-03	Announcement on employment opportunities at 2014 job fair	
Exh. 15.2-04	Decision on the establishment of PR Office	
Exh. 15.2-05	Plan Implementation Report – Term I/ AY 2014 -2015	
Exh. 15.3.01	Result of investigation into corporate evaluation on HCMUTE students' responding to job requirements	