SELF - ASSESSMENT REPORT FOR AUN-QA

HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATION
FACULTY OF ECONOMICS
HCMUTE

BACHELOR OF BUSINESS ADMINISTRATION
IN INDUSTRIAL MANAGEMENT

AUN-QA
A Touch of Quality

The 127th AUN Quality Assessment at Programme Level
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AUN–QA SELF-ASSESSMENT REPORT

of the Bachelor of Business Administration
in INDUSTRIAL MANAGEMENT

We hereby confirm to approve the AUN-QA Seft-Assessment Report of the Bachelor of Business Administration in Industrial Management programme for assessment according to AUN-QA Criteria (V3.0).

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LIST OF ABBREVIATIONS

AAO	Academic Affairs Office
ACET	Automation and Control Engineering Technology Programme
ASAO	Admissions and Student Affairs Office
ASC	Academic and Scientific Committee
ASU	Arizona State University
AUN-QA	ASEAN University Network – Quality Assurance
BECUTE	Business English Club of University of Technology and Education
BUILD-IT	Build University-Industry Learning and Development through Innovation and Technology
CDIO	Conceive – Design – Implement – Operate
CLOs	Course Learning Outcomes
COMET	Connecting the Mekong through Education and Training
CTU	Can Tho University
DBA	Department of Business Administration
DL	Distance Learning
DLC	Digital Learning Centre
E/M learning	Electronic/Mobile learning
ELOs	Expected Learning Outcomes
ERO	Enterprises Relations Office
ESCUTE	Economic Student Club of UTE (ESCUTE)
FE	Faculty of Economics
FTE	Full-Time Equivalent
GPA	Grade Point Average
HCMUT	Ho Chi Minh City University of Technology
HCMUTE	Ho Chi Minh City University of Technology and Education
HEEAP	Higher Engineering Education Alliance Programme
IM	Industrial Management
IMP	Industrial Management Programme
IoT	Internet of Things
ISO	International Organization for Standardization

IT	Information Technology
KPIs	Key Performance Indicators
LMS	Learning Management System
MET	Mechatronics Technology Programme
MoET	Ministry of Education and Training
MSU	Missouri State University
POs	Programme Objectives
QA	Quality Assurance
QAO	Quality Assurance Office
SAR	Self-Assessment Report
SSC	Student Services Centre
UTE-TV	University of Technology and Education TV
YU	Youth Union

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PART I: INTRODUCTION

1.1 Executive Summary

The Industrial Management Programme (IMP) is the first programme of Faculty of Economics (FE) at Ho Chi Minh City University of Technology and Education (HCMUTE) to be selected for AUN-QA assessment. With the support and advice of the Quality Assurance Office (QAO), FE has formed a Self-Assessment Report (SAR) team. The head of the SAR team is the Vice Dean and the SAR team members are department heads and lecturers with considerable experience in teaching IMP. Each member was responsible for some criteria in the SAR and gathered relevant evidences. When the first version of SAR was finished, it was sent to QAO and external experts for review. Based on their comments, SAR was revised to become this version.

Our SAR is composed of four main parts: Introduction (Part I), AUN-QA Criteria (Part II), Strengths and Weaknesses Analysis (Part III), and Appendices (Part IV). Part I introduces HCMUTE, FE and IMP. Part II presents the 11 criteria in accordance with Version 3 of AUN-QA. Part III presents the analysis of the strengths and weaknesses of the study programme, thus providing solutions for improving the programme in the future. Finally, Part IV presents the evidences that accompany the criteria and other related documents.

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

HCMUTE was formed and developed on the basis of the Technical Education Department, established on 05th October 1962. After being renamed several times due to integration with other schools, the institution changed its name to Ho Chi Minh City University of Technology and Education in 2000. Located at the eastern gateway to Ho Chi Minh City, it is at 1 Vo Van Ngan Street, Thu Duc District, about 10 km from the city centre. HCMUTE brings together the advantages of a spacious, modern, and safe campus. Despite being in the suburbs, it has easy access to the city centre, the airport, and the surrounding areas. It is also close to various industrial zones and Saigon High Tech Park.

As of 2018, HCMUTE has 15 faculties, 17 functional offices, and 17 institutes and centres. The University has a total area of 21,036 hectares, with over 60 hectares of building floor space. HCMUTE is now offering 7 PhD's programmes, 14 Master's programmes, and 36 Bachelor's programmes. The total number of students is 25,343.

1.2.1 Vision

HCMC University of Technology and Education will become a leading centre for training, research, innovation and entrepreneurship in Vietnam, on a par with reputable universities in the region and the world.

1.2.2 Missions

– Being a leading institution for training, research, and technology transfer in Vietnam

– Continuously innovating, providing high quality human resources and scientific products in vocational education, science, technology to satisfy the socio-economic development demand of our country and the region.

1.2.3 Core values

The core values of a progressive and modern education which have always been and will be appreciated, preserved, and creatively implemented by HCMUTE are:

- Upholding and implementing Vietnamese people's humane traditional values
- Cultivation of talents and creativity, with a focus on training professional skills and responsibility
- Respect for the learners and the community
- Building an ever-learning society
- High regard for quality, effectiveness, and innovation in activities
- Integration, cooperation, and sharing

1.2.4 Organizational Structure of HCMUTE

The Presidential Board of HCMUTE operates under the supervision of the University Council. Under the Presidential Board are Academic Faculties, Functional Offices, Institutes and Centres. The organizational chart of HCMUTE is shown below:

UNIVERSITY COUNCIL

PRESIDENTIAL BOARD

ACADEMIC & SCIENTIFIC COMMITEE

ACADEMIC FACULTIES

- Faculty of Mechanical Engineering
- Faculty of Vehicle and Energy Engineering
- Faculty of Chemical and Food Technology
- Faculty of Garment Technology And Fashion Design
- Faculty of Information Technology
- Faculty of High Quality Training
- Faculty of Electrical and Electronics Engineering
- Faculty of Graphic Arts And Media
- Faculty of Applied Sciences
- Faculty of Economics
- Faculty of Political Ideology
- Faculty of Foreign Languages
- School of Innovation and Entrepreneurship
- Faculty of Civil Engineering
- Institute of Technical Education

FUNCTIONAL OFFICES

- Dormitory Management
- Office of Projects Management
- Quality Assurance Office
- Academic Affairs Office
- Non-Official Academic Affairs Office
- Office of Finance and Planning
- Enterprises Relations Office
- International Relations Office
- Science and Technology Office
- Facility Management Office
- Academic Inspectorate Office
- Office of Equipment and Maintenance
- General Administration and Personnel Affairs Office
- Office of Admissions and Student Affairs
- Office of Press and Media
- Healthcare
- Library

CENTER

- Digital Learning Center
- Continuous Training Center
- Student Services Center
- Information and Network Center
- Industrial Device Design and Fabrication Advisory
- Environmental Engineering and Technology Center
- Dong A - UTE Korean Language Center
- Vietnam – Japan International Orientation and Education Center
- Foreign Languages Center
- Information Technology Center
- Engineering Synthesis Center
- Technology Research and Transfer Center
- International Education Exchange Center
- Central - Highlands Vietnam Center for General and Vocational Education
- Physical Education and Military Education Center
- Civil Engineering Research and Application Center
- Recycled Energy Center

Figure 0.1: Organizational Structure of HCMUTE

1.2.5 Quality Assurance System of HCMUTE

HCMUTE has announced and endorsed its quality policy as follows: Continuously upgrade the quality of teaching, learning and scientific research to provide students with the best conditions to comprehensively develop their professional skills in order to satisfy the demand of society and international integration.

Quality Assurance Office (QAO): Quality Management was embedded in the Academic Affair Office (AAO) before 2008. QAO was established in 2008 according to the Ministry of Education and Training (MoET's regulations in order to improve the educational quality in the whole university. QAO takes responsibility for quality management according to International Organization for Standardization (ISO) 9001 standard with a system of 42 procedures, develops an internal quality assurance system and performs quality assessment as well as accreditation at institutional level and programme level in accordance with national, regional and international standards.

QAO has 6 staff members who regularly attend various QA training courses to continue improving our internal quality assurance system based on AUN-QA model. HCMUTE also has 1 member who has been AUN assessor and education accreditor of the Department of Education Testing and Accreditation, MoET, since 2014. The main milestones of QA activities and results since 2005 are presented in Table 0.1.

Table 0.1: Overview of the assessment/accreditation of HCMUTE

Year	Programme / Institution	Assessed / Accredited by
2005	Quality accreditation at institutional level	MoET
2007	Quality management certification	ISO 9001
2011	External assessment of TVET in EEE	MoET
Mar. 2016	AUN-QA assessment at programme level: *1. Automotive Engineering Technology* *2. Electrical and Electronics Engineering Technology* *3. Mechatronics Engineering Technology*	AUN–QA
Nov. 2016	Quality accreditation at institutional level	MoET
Dec. 2016	AUN–QA assessment at programme level: *1. Construction Engineering Technology*	AUN–QA
Nov. 2017	AUN–QA assessment at programme level: *1. Machine Manufacturing Technology* *2. Thermal Engineering Technology* *3. Electronics Communication Engineering Technology* *4. Environmental Engineering Technology*	AUN–QA
Dec. 2018	AUN-QA assessment at programme level:	AUN–QA

	1. Mechanical Engineering Technology 2. Automation and Control Engineering Technology 3. Industrial Management	(in progress)
Nov. 2019	AUN-QA assessment at programme level: 1. Garment Technology 2. Information Technology 3. Printing Engineering Technology	AUN–QA (in progress)

1.3 Faculty of Economics

IMP started its enrolment in 2006, when it was still under the Faculty of Economics and Political Science. On 17th August 2007, the Faculty of Economics (FE) and Political Science was split into the Faculty of Economics and the Faculty of Political Ideology. New majors have been allowed to open continuously over the years: Industrial Management (2006), Accounting (2007), E-Commerce (2015), Logistics and Supply Chain Management (2016). In 2018, FE offers the first Master's degree programme of Economic Management. The total number of full-time students studying at FE on 30th August 2017 was approximately one thousand. Currently, more than 1,000 students of the two majors of IM and Accounting have graduated; about 80% of the graduates got jobs within 3 months after graduation (according to QAO's survey results). Since its inception, FE members have always tried to improve the quality of teaching, scientific research and professional development.

1.3.1 Vision

FE–HCMUTE will become one of the leading centers for training, scientific research and consultancy in Industrial Management, Accounting and Finance, E-commerce, Logistics and Supply Chain Management among the universities in Vietnam, and step by step reach to the regional and international levels.

1.3.2 Mission

FE–HCMUTE provides the society high-quality human resources and scientific products in the fields of Industrial Management, Accounting and Finance, E-commerce, Logistics and Supply Chain Management, contributing to the socio-economic development and international integration of Vietnam.

1.4 Industrial Management Programme

IMP was introduced in 2006 with 180 credits. In 2012, the curriculum was revised and reduced to 150 credits, consisting of general courses (54 credits), fundamental courses (26 credits), specialized courses (56 credits), and internship/thesis (14 credits). In 2018, IMP was streamlined again and reduced to 125 credits. The purpose of revisions is to meet the requirements of the changing business environment. Each year, nearly 100 high-school graduates enrol in this programme. IMP objectives are to train university graduates who will be able to:

PO1: Apply knowledge of foundation sciences, economics and management

PO2: Self-study, think systematically, and solve problems in production systems

PO3: Lead and work in a team, communicate effectively

PO4: Conceive ideas, design, implement, and operate production systems in enterprises

IMP equips graduates with competences to meet the various requirements of different labour markets, especially in five main sectors: production management, supply chain management, quality management, human resource management and business management. Production management includes production planning, purchasing and inventory management, and staff management. Supply chain management involves negotiating contracts, establishing long-term relationships with suppliers, maintaining the accuracy of the purchasing system, invoices, and returned goods. Process improvement consultancy includes designing and implementing lean manufacturing plans and reducing production time in both manufacturing and service sectors. Quality management includes a detailed analysis of databases and spreadsheets, process validation to identify areas for improvement, and management of changes. Personnel management includes personnel planning, training needs assessment and training planning, salary and bonus plans, incentive plans and labour relations. Business management includes market research, marketing management, strategic planning, and business planning. IMP graduates can work in many departments, such as production, quality, sales, marketing, personnel, planning, in all types of companies, with various roles – as direct performers, administrators, and managers.

PART II: AUN-QA CRITERIA

1. Expected Learning Outcomes

1.1. The expected learning outcomes have been clearly formulated and aligned with the vision and mission of the university

The expected learning outcomes (ELOs) of IMP are based on the POs in accordance with the laws of higher education and the vision and missions of FE and HCMUTE as shown in Table 1.1.

Table 1.1: Alignment of IMP objectives with FE and HCMUTE's vision and missions, and Vietnamese laws of higher education

IMP objectives	FE vision and missions	HCMUTE's vision and missions	Laws of higher education
PO1. Apply knowledge of foundation sciences, economics and management PO4. Conceive ideas, design, implement, and operate production system in enterprises	FE–HCMUTE will become one of the leading centers for training, scientific research and consultancy in Industrial Management, Accounting and Finance, E-commerce, Logistics and Supply Chain Management among the universities in Vietnam, and step by step reach to the regional and international levels.	Be a leading institution in training, research, creativity, innovation and entrepreneurship in Vietnam	Have general and specialized knowledge Be able to create and solve problems relating to trained career Have basic practical skills; Have morality and profession
PO2. Self-study, think systematically, and solve problems in production systems PO3. Lead and work in a team, communicate effectively	FE–HCMUTE provides the society high-quality human resources and scientific products in the fields of Industrial Management, Accounting and Finance, E-commerce, Logistics and Supply Chain Management, contributing to the socio-economic development and international integration of Vietnam.	Continuously innovate, provide high quality human resources and scientific products in vocational education, science, technology to satisfy the socio-economic development needs of our country and the region	Adapt to working environment; Be able to work independently or in a group

The ELOs of the 150-credit IMP were formulated and applied for the first time in 2012. In order to formulate them, FE analyzed its own vision and missions and those of HCMUTE. FE also referred to similar programmes in well-known national and foreign universities such as Ho Chi Minh City University of Technology (HCMUT), Can Tho University (CTU), Missouri State University (MSU) and the University of Gavle *[Exh.1.1: ELOs of other IMPs]*. To meet stakeholders' needs, IMP was developed based on the feedback from employers, lecturers, alumni, and students via a conference

in April 2012. All feedback was discussed and then reasonable ELOs were selected as listed in Table 1.2. Thus, IMP helps students increase their competitiveness in international working environments.

Table 1.2: Alignment between IMP objectives and ELOs

Programme objectives	Expected learning outcomes
PO1: Apply knowledge of foundation sciences, economics and management	1.1 Apply knowledge of basic science in industrial management
	1.2 Illustrate general knowledge of management in production, business, trade and service
	1.3 Implement knowledge of industrial management such as production management, quality management, human resources management, and marketing management
PO2: Self-study, think systematically, and solve problems in production systems	2.1 Analyze, evaluate and solve problems in production and business
	2.2 Do a research in business operations
	2.3 Conduct systematic thinking
	2.4 Show professional working attitudes, international integration and lifelong learning capacity
	2.5 Be aware of professional ethics
PO3: Lead and work in a team, communicate effectively	3.1 Lead and work in a team
	3.2 Communicate effectively in business environment
	3.3 Communicate in English
PO4: Conceive ideas, design, implement, and operate production systems in enterprises	4.1 Understand macro-factors' influence on business operations
	4.2 Adapt to different working environments
	4.3 Conceive ideas of production system improvement
	4.4 Set up requirements, make plans
	4.5 Implement a plan or a project
	4.6 Operate and manage production systems

The POs, ELOs, and vision and missions of FE are published on FE website: http://fe.hcmute.edu.vn/. To evaluate the programme, FE collected stakeholders' feedback through questionnaires and surveys every two years – in 2014 and 2016. In 2018, after the development of the new 125-credit IMP, FE organized a conference to adjust its curriculum, including the adjustment of the ELOs *[Exh.1.2: Minutes of conference]*. A new ELO has been added – ELO 4.7, concerning the ability of students to start up a business *[Exh.1.3: ELOs of 125-credit IMP]* .

Each course in IMP is designed to achieve the established ELOs, which cover both general and specialized knowledge. Each ELO is aligned with the POs. Table 1.3 shows the matrix of POs versus ELOs.

Table 1.3: The relationship between POs and ELOs

Programme Objectives	Expected learning outcomes																
	1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
PO1	x	x	x														
PO2				x	x	x	x	x									
PO3									x	x	x						
PO4												x	x	x	x	x	x

1.2. The expected learning outcomes cover both subject specific and generic (i.e. transferable) learning outcomes

The ELOs of IMP cover both generic and specific knowledge and skills so that graduates can work in enterprises as well as study at higher levels. The ELOs are designed to help students acquire knowledge, skills, attitudes, and the ability to apply these in solving specific problems in enterprises. The following Table 1.4 categorizes the ELOs into knowledge, skills and attitudes.

Table 1.4: Categorization of ELOs into knowledge, skills and attitudes

Knowledge, skills and attitude		ELOs
General knowledge	Math, science and management	1.1 Apply knowledge of basic science in industrial management 1.2 Illustrate general knowledge of management in production, business, trade and service
Specific knowledge	Quality management, human resources management, marketing, finance, production management in business operations	1.3 Implement knowledge of industrial management such as production management, quality management, human resources management, and marketing management 4.1 Understand macro-factors' influence on business operations
Generic skills	Leadership, teamwork, adaptability and communication in business environments	3.1 Lead and work in a team 3.2 Communicate effectively in business environment 3.3 Communicate in English 4.2 Adapt to different working environments
Specific skills	Problem solving, business research, systematic thinking,	2.1 Analyze, evaluate and solve problems in production and business

	conceiving, designing, implementing, operating business systems	2.2 Do a research in business operations
		2.3 Conduct systematic thinking
		4.3 Conceive ideas of production system improvement
		4.4 Set up requirement, make plans
		4.5 Implement a plan or a project
		4.6 Operate and manage production systems
Attitude	Professional working attitude, international integration, ethics	2.4 Show professional working attitude, international integration and lifelong learning capacity
		2.5 Be aware of professional ethics

IMP offers basic, fundamental and specialized courses to help students achieve the above ELOs. In addition, the ELOs are attained through numerous extracurricular activities – Internship, Business English Club of University of Technology and Education (BECUTE), workshops and business researches conducted by Economic Students' Club of UTE (ESCUTE), field trips, seminars and training workshops presented by alumni and enterprises and other social activities (Mid-autumn festival for children, Spring volunteer campaign, Green summer volunteer campaign, Entrance exam support campaign) *[Exh.1.4: Extra-curricular activities]*. These activities can contribute to the ELOs as shown in Table 1.5 at different levels – low (L), medium (M), and high (H).

Table 1.5: The contribution of extra-curricular activities to ELOs

Activities	ELOs									
	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.2	4.3
English speaking club run by BECUTE				L		M	M	H		
Academic activities held by ESCUTE		L	L	M		H				
Field trips			M		L		L		M	L
Internship	M		M	M			M	L	M	H
Seminars and training workshops run by alumni and enterprises					M	M		M		
Social activities			M	L		H	M		M	

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

The development of IMP involves the ELOs based on the ISO procedure. This is a continuous circle and consists of four main steps: (1) collect feedback from stakeholders; (2) benchmark and revise the ELOs; (3) get the ELOs evaluated and approved by the Scientific and Academic Committee (SAC); (4) implement the IMP *[Exh.1.5: Feedback from stakeholders]*.

For improvement of the programme performance, programme objectives as well as ELOs are reviewed periodically and modified every two years. FE collect stakeholders' feedback through

questionnaires and surveys. Based on those feedback, POs and ELOs are revised. Here is an example of the adjustment of lectures and assessment methods based on stakeholders' feedback in 2016.

Table 1.6 Requirements from stakeholders

Stakeholders	Requirements	Related ELOs	Solutions
Employers	Communication in English	ELO 3.3	- Improve students' English skills in the courses – Students use English textbooks and slides - Set up the required English level as Toeic 450 for enrolments in 2012 and Toeic 500 for enrolments in 2015
Employers	Soft skills: problem solving, team work	ELO 2.1, 3.1	- Embed and teach soft skills in various courses – Presentation Skills, Introduction to IM course. - Students are requested to do projects and report on the results. - Since 2014: Implement the social activity measurement system
Alumni	Enhance skills in technology, specialized software	ELO 2.2	- Add some specialized software to courses such as MS Project (Project management), MiniTab (Production Management, Quality Management)
Lecturers	Lifelong learning	ELO 2.4	- Adopt the LMS - Transform the basement and 5th floor into self-study areas
Students	Start-ups	ELO 4.3	- Faculty of Innovation and Entrepreneurship was founded in 2015, commencing to build facilities such as offices, environments, equipment, settling procedures and internal organization - Add the elective "Start up" course to IMP as selective

In 2012, based on the feedback of stakeholders, a new course "Introduction to IM" was added to the curriculum for the purpose of improving soft skills and job orientation. This course also aims to introduce students to the curriculum so that they can understand what they will study at university. This course also outlines the specialized knowledge taught in IMP which give learners specific directions for their future career and research, especially the soft skills students have to acquire to be able to thrive in their future careers. This early introduction helps students be aware of what they have to prepare for a successful career. Since 2016, FE has been using rubrics in the assessment of essays, presentations and graduation theses *[see appendix 1: Sample of Rubrics]*. FE also invites the entrepreneur/business as committee members for thesis defend and students are encouraged to present their theses in English. *[Exh.1.6: Video and pictures of thesis defense]*

The ELOs shown in Table 1.2, are fully reflected in the formative and summative assessments of the course. The assessment of the course is divided into formative assessment (50%) and summative assessment (50%). ELOs and the content of the programme are developed in reasonable degrees of difficulty. ELOs are reviewed and revised periodically to ensure the contribution of individual courses to the achievement of IMP's ELOs.

Students' job opportunities are clearly presented in the programme description posted on FE website and presented in the Introduction to IM course. Specific career opportunities involve production management, supply chain management, process improvement, quality management, human resource management, and business management.

2. Programme Specification

2.1. The information in the programme specification is comprehensive and up-to-date

The ELOs are fully translated into the curriculum and the courses. Each course is designed to support the programme's ELOs and the ELOs support the POs *[Appendix 2a: Correlation matrix between ELOs and courses]*. The curriculum of IMP is based on MoET's regulations and Vietnam Education Law and was approved by MoET in 2005. IMP specification also meets AUN-QA requirements as in Appendix 2b. It includes the following main items:

- Awarding institution: Ho Chi Minh City University of Technology and Education

- Teaching institution: Faculty of Economics, Ho Chi Minh City University of Technology and Education

- The name of the final award: Bachelor of Industrial Management

- Programme title: Industrial Management

- Admission criteria or requirements to the programme: based on the results of the National high school leaving examination and the required minimum score for university admissions (set by the MoET), high-school transcript submission or direct selection.

- The programme structure and requirements include levels, courses, credits, ELOs, teaching and learning approach, student assessment, career prospect, etc. Each course is encrypted with codes to facilitate course administration *[see appendix 2b: The IMP Specification]*

The development of IMP is based on the ISO procedure. To revise the programme, this procedure includes the following steps:

1. Plan to revise the IM programme and ELOs

2. Organize seminars and meetings with relevant departments and lecturers

3. Check the feedback from stakeholders

4. Improve and modify the programme and ELOs after acknowledgment of comments from relevant parties

The curriculum of IMP is constantly updated to respond to changes in the labour market. In 2012, the number of credits was reduced from 180 to 150. The reduction aimed to give students more time for self-study and enhance their lifelong learning ability. Assessment, teaching and learning methods were also changed to suit the changing curriculum. In 2018, IMP was further shortened to 125 credits. In teaching the new curriculum, we apply project-based learning, with some courses

combined and taught as projects. We also add ELO 4.7 about start-up ability and massive open online courses (MOOCs) *[Exh.2.1: Some open online courses]*. Every two years, according to the quality assurance procedures issued by HCMUTE, FE can adjust about 5-7% of the courses in the programme to adapt to new societal needs. *[Exh.2.2: Minutes of revision and adjustment of IMP]*.

2.2. The information in the course specification is comprehensive and up-to-date

All syllabi are standardized throughout IMP. Course syllabi demonstrate teaching plans and the requirements for completion of the courses. All syllabi have course description, course goals and CLOs. All ELOs in the programme are supported by course goals and CLOs. Detailed relationships between ELOs and course goals are shown in the correlation matrix *[see appendix 2a]*

The detailed syllabus of a specific course in IMP consists of 15 main contents as follows:

1. Course Title
2. Course Code
3. Credit Units, including theory, practice/experiment, and self-study credits
4. Course Instructors
5. Course Requirements
6. Course Description
7. Course Goals
8. Course Learning Outcomes, which are mapped onto the programme's ELOs
9. Learning Resources, including textbooks and references
10. Student Assessment
11. Course Contents, including teaching and learning strategies
12. Learning Ethics
13. Date of first approval
14. Approved by
15. Date and Revision content *[see appendix 4: Some course syllabi]*

A detailed syllabus was developed by lecturers or a group of lecturers and reviewed by other lecturers and businesses. To ensure up-to-date contents, feedback from students on the syllabus is collected during teaching time, then lecturers write down their "Lecturer's Portfolio". Students' feedback is also collected through students' surveys on the teaching quality of academic staff. At the end of each semester, the head of department holds a meeting with lecturers to reevaluate the syllabus. Issues relating to the course are raised and resolved. Any changesproposed will be discussed and approved appropriately to improve the syllabus. *[Exh.2.3: Minutes of the department meeting for revising syllabus]*

2.3. The programme and course specification are communicated, and made available to the stakeholders

First-year students are introduced to the contents of IMP in the Introduction to IM course *[Exh.2.4: Syllabus of Introduction to IM course]*. The detailed curriculum and syllabi are also available on FE website, so students and stakeholders can refer to the curriculum structure and programme specification. HCMUTE organizes annual enrolment consultations broadcast live on UTE-TV.

Through this activity, FE can introduce IMP to high school students as well as parents across the country. In addition, in January, HCMUTE organizes an open day, on which FE introduces high school students to IMP and answers questions about future career orientation. At the end of each semester, the Enterprises Relations Office (ERO) and businesses jointly organize a job fair for job seekers to meet with potential employers.

On the first day of each course, lecturers introduce the detailed syllabus and assessment methods to students. Lecturers are also responsible for posting the syllabus on the LMS (https://lms.hcmute.edu.vn/) for students to refer to. *[Exh.2.5: Sample of LMS courses]*.

3. Programme Structure and Content

3.1. The curriculum is designed based on constructive alignment with the expected learning outcomes

The IMP curriculum was designed based on constructive alignment with the ELOs. Suitable courses were selected so that all ELOs were supported by CLOs. The correlation between ELOs and the courses is presented in the correlation matrix *[see appendix 2a]*. The correlation has three levels: high, medium and low. Each ELO (based on Bloom's Taxonomy) entails suitable teaching, learning and assessment methods. For examples, ELO 2.1 is "*Analyze, evaluate and solve problems in production and business*". To achieve this ELO, IMP has courses such as Fundamental Management, Human Resource Management, Project Management, in which case studies or scenarios are used for teaching. To assess this ELO, essays are used to assess the ability to analyze, evaluate and solve problems in production and business.

All courses in the curriculum are arranged in ascending order of complexity. To ensure that students have enough knowledge to study specialized courses, all fundamental and specialized courses necessitate prerequisites or parallel courses. For example, the Fundamental Management course (a fundamental course) is a prerequisite for courses in Quality Management, Production Management and Project Management (specialized courses). *[Exh.3.1: Curriculum map]*

The current curriculum structure of IMP is also benchmarked against the programme's outcomes and the curricula of other domestic and overseas universities such as Ho Chi Minh City University of Technology (HCMUT), Can Tho University (CTU), Missouri State University (MSU) and University of Gavle. Highlights from IMP comparisons are shown in Table 3.1.

Table 3.1: Benchmarking IMP Against Other Programmes

University	Duration (year)	Total Credits	No. of credits			
			General Knowledge	Fundamental Knowledge	Specialized Knowledge	Internship /Thesis
HCMUTE	4	150	54	26	56	14
HCMUT	4.5	153	53	48	35	17
CTU	4	140	48	42	50	0
MSU	4	126	36	24	80	0
Gavle	4.5	180	30	30	105	15

3.2. The contribution made by each course to achieve the expected learning outcomes is clear

From the POs and ELOs, IMP is designed so that the contribution made by each course to achieve the programme's ELOs is clear. Each ELO is supported by different courses from basic to specialized courses. The relation between CLOs and ELOs is shown clearly in the correlation matrix between ELOs and courses *[see appendix 2a].*

On average, 16 courses support one ELO. On the other hand, one course can contribute to many ELOs. For example, in the correlation matrix, ELO 3.1 (Leadership and Teamwork skills) is supported by the following courses: Introduction to IM, Business English, Marketing Management, Human Resource Management, Production System, Strategic Management, Project Management, Quality Management, Production Management, and others, whereas the Production Management course contributes to ELOs 1.3, 2.1, 3.1, 3.3, 4.4 and 4.6.

The contents of courses taught in later semesters are at higher levels of learning than those in previous semesters. For example, knowledge of management is generally taught in the Fundamental Management course in semester 3. This knowledge is later taught in more detail and at higher difficulty levels in Human Resource Management course, Project Management course and Quality Management course in semesters 5 and 6. Finally, in semester 8, management knowledge must be analyzed in a case study of a real enterprise during internship and in the final thesis. in which students have to find solutions to real problems in enterprises *[Exh.3.2: Brief outline of all courses in IMP].*

3.3. The curriculum is logically structured, sequenced, integrated and up-to-date

In the IMP curriculum, there is a balanced distribution between general, fundamental, specialized courses, and internship/thesis. The curriculum consists of general courses (54 credits), fundamental courses (26 credits), specialized courses (56 credits), and internship/thesis (14 credits). Students must accumulate 150 credits in order to graduate. The programme also offers various elective courses. Students can choose one of the following four main themes for their graduation thesis: production management, quality management, human resource management and marketing management. Electives include 16 credits, accounting for 11% of the total credits which allow students to focus on one particular career area they wish to pursue *[Exh.3.3: IMP structure].* Figure 3.1 shows the percentage of each knowledge and skill block in the IMP curriculum. Details of the order of courses are shown in the curriculum map *[see Exh.3.1].*
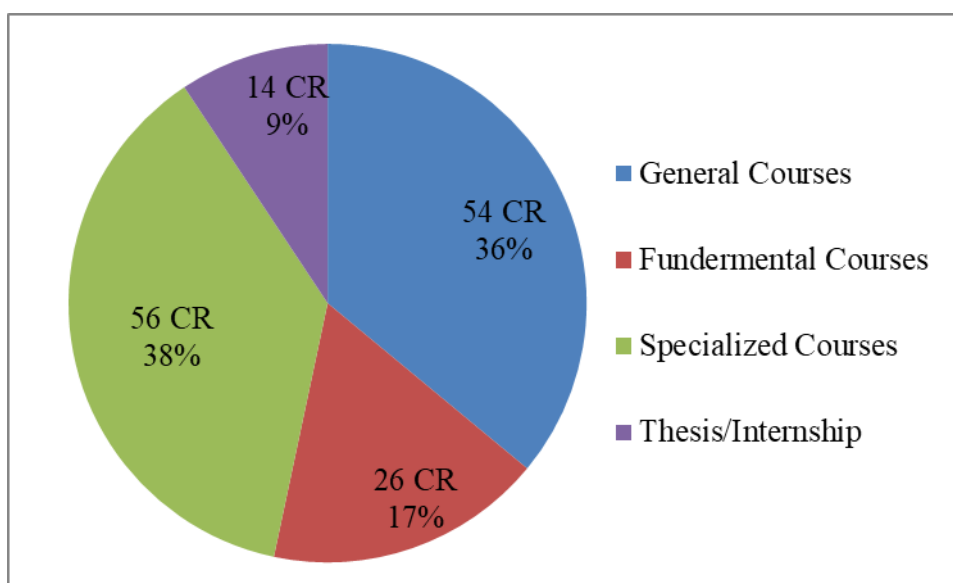
Figure 3.1: Contribution of courses to the IM curriculum

The structure of IMP has been designed based on MoET regulations, stakeholders' requirements and the curricula of other domestic and overseas universities *[Exh.3.4: Benchmarking programme structure of the IMP and other programmes]*. Specialized courses (38% of IMP) aim to help students find jobs easily upon graduation in many fields. Fundamental courses (17% of IMP), which must be studied before specialized courses, help students study specialized courses. General courses (36% of IMP) provide students with useful general knowledge for lifelong learning and working in different positions. And lastly, the thesis helps students apply all the knowledge gained at university to a specific company.
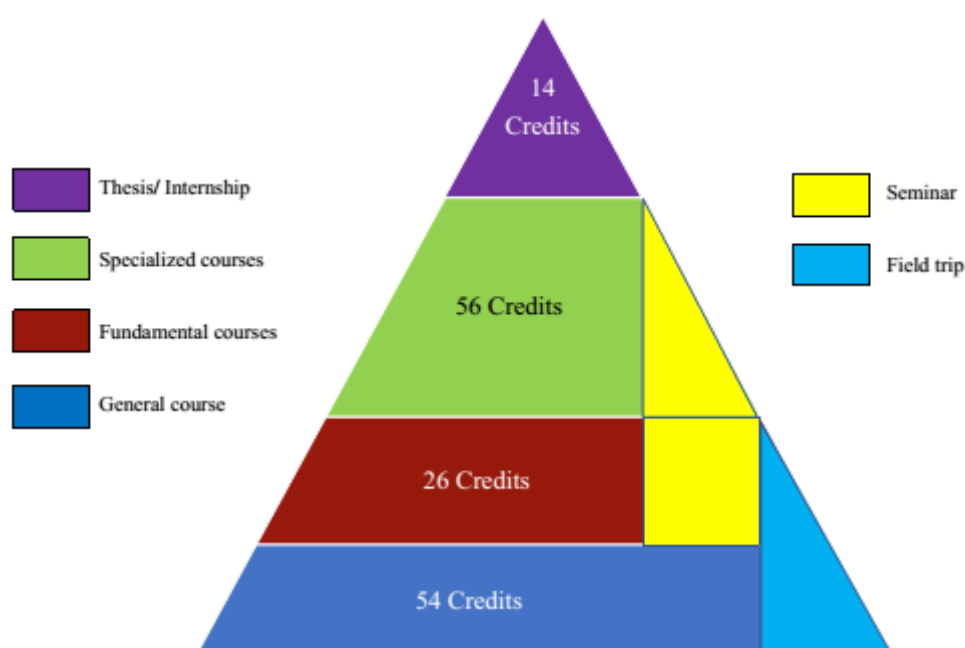
Figure 3.2: Credit course distribution of programme

The IMP curriculum, designed in a coherent sequence, clearly demonstrates the link between general courses, fundamental courses, specialized courses and the thesis/internship. According to the requirements of knowledge accumulation, IMP has two types of courses: compulsory and

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elective. Compulsory courses provide students with essential knowledge of the programme. Electives allow students to pursue specialization in the field of IM or change to other fields. After finishing all the required courses, students spend the last semester preparing for their graduation thesis or for the graduation examination. This helps students enhance the knowledge learned in the programme.

The curriculum duration is 4 years. Students have a fixed schedule for the first semester. From the second semester on, students can choose the total number of credits to study. Excellent students can study and complete the programme in 3.5 years. Students are allowed to take up to 8 years to finish their degrees. In the first semester, students are enrolled in Introduction to IM course, which provides the skills and motivation necessary for their later studies. General courses enrich students with the basic knowledge of math, physics and social sciences to enable them to learn the specialized courses and fundamental courses better. Fundamental courses provide a solid background for the subsequent specialized courses. Specialized courses are designed based on general and fundamental courses so that the knowledge and skills are taught at higher levels (figure 3.2). General courses provide knowledge to help students learn fundamental and specialized courses. For examples, Math, which is a general course, supports Mathematical Optimization, which is a fundamental course. And Mathematical Optimization supports Production Management, which is a specialized course. Specialized courses are updated continuously to meet the requirements of society. Internship is a compulsory course, in which students have opportunities to put their knowledge into practice. Finally, students have to use all the gained knowledge to propose feasible solutions to the problems faced during the internship.

IMP has been improved and revised twice (in 2012 and 2018) with the gradual reduction of the number of credits –and systematic integration of knowledge blocks and courses: 180 credits (from 2008 to 2011), 150 credits (from 2012 to 2017) and 125 credits (from 2018 up to now). Reducing the number of credits aims to promote students' self-study ability to support their lifelong learning *[Exh.3.5: A comparison of the general, fundamental, specialized knowledge and the credits of the 2018 and 2012 curricula].*

The ISO procedure of HCMUTE guides the evaluation and periodic update of the curriculum. At the end of each semester, there is a meeting to re-evaluate the courses taught in the semester. The departments have the right to propose changes to the course or programme content –up to 5-7%, to satisfy stakeholders' demands. IMP was reviewed for the first time at the end of 2014, and the 150-credit IMP was reviewed again in 2016 to enhance integration for IMP graduates*. [Exh.3.6: IMP review of 2016]*

4. Teaching and Learning Approach

4.1. The educational philosophy is well articulated and communicated to all stakeholders

The key statement of HCMUTE Educational Philosophy is **"**HUMANITY, INNOVATION, INTEGRATION**"**. We build our Quality Policy, focussing on this philosophy, desiring our students to develop into well-rounded individuals to meet the needs of society and international integration. This philosophy is posted on the University's website so that all stakeholders are aware of it. For new students, this philosophy is introduced in the Introduction to IM course. HCMUTE leaders also mention this philosophy at meetings, talk shows, and notifications.

The philosophy has been translated to teaching and learning throughout IMP, which enables students to acquire both broad and deep knowledge in industrial management such as production management, quality management, human management, supply chain management, etc. Accordingly, IMP promotes students' creativity by conceiving ideas of production system improvement and generating ideas of start-ups. IMP teaching-learning activities also focus on building leadership and team-working skills for students. Students build up the ability to adapt to different working environments and acquire a sense of compliance with professional ethics. All our requirements are specified through the ELOs of IMP. (see Appendix 1a: IMP specification)

Based on the Educational Philosophy, lecturers provide knowledge and skills, inspire students to learn independently and support one another to become competent, conscientious and responsible individuals. Students create and proactively expand their knowledge and skills to promote their potential creativity in order to fulfill their aspirations and serve society. For example, emphasizing creativity and entrepreneurial skills, students have been motivated to develop business ideas, and practice establishing a start-up in the E-Commerce course. Students have to design e-commerce pages and practice purchasing solutions. Their real activities and performance are part of their marks. *[Exh.4.1: Link of some real-practice students' website]*

In addition, in the final thesis defense, all students are required to analyze company situations and give solutions to the problems that they found in enterprises. These activities help students put theory to practice. Moreover, students could come up with ideas for improving production systems and honing skills, such as leadership, team-working or working independently.

Last but not least, IMP students are encouraged to develop the ability of communication in English to work in foreign companies. If students present their thesis in English, they receive a 0.5 point bonus. Every year FE sets up a special thesis defense committee so that students could defend their theses in English. The event is livestreamed on Facebook by UTE-TV Channel for everyone to watch, especially potential employers.

4.2. Teaching and learning activities are constructively aligned to the achievement of the expected learning outcomes

Course syllabi clearly introduce teaching-learning activities and assessment methods (formative and summative). These methods are informed to students on the first day of the course and posted on the LMS website (https://lms.hcmute.edu.vn).

To achieve the CLOs, various teaching-learning methods are applied. For the CLOs relating to knowledge, teaching-learning methods include lectures, problem solving, case studies, etc. For the learning outcomes relating to skills and attitudes, teaching-learning methods involve field trips, discussions, presentations, debates, teamwork projects, self-study and practice in computer rooms. For example, the teaching methods of Fundamental Management course is based on lectures, debates and case studies. These kinds of teaching methods help students gain basic knowledge about the business environments of enterprises and the basic functions of management. Lecturers will choose appropriate methods to help students easily acquire knowledge and build up lifelong learning competence –problem solving capacity, creativity, and research skills. For instance, lecturers of E-Commerce use the project-based teaching method to help students gain deeper knowledge by actively investigating real business challenges. Lecturers of Mathematical Optimization, on the other hand, use the flipped classroom method to provide students with basic knowledge through video lectures and a deeper understanding in class meetings. Technology is

increasingly more effectively used in teaching. In sum, teaching and learning activities are constructively aligned to the achievement of the expected learning outcomes. *[see Appendix 4: Some teaching plans and syllabi]*.

All classrooms are equipped with modern equipment –projectors, smart TVs, etc. Lecturers can use these tools to integrate teaching methods –electronic and video lectures. Free WIFI facilities are provided in all classrooms, offices and self-study areas. Students can easily access the Internet to find necessary materials. Most courses are posted on the E/M learning system, (www.lms.hcmute.edu.vn.). Therefore, students can easily update recorded lectures, handouts, delivered assignments and homework. Discussion forums enable students to interact with lecturers and classmates at their convenience. In addition, lecturers have teaching assistants to help students do exercises, solve problems, etc. [*Exh.4.2: Some images of LMS activities, in class*]

FE has two main student clubs – the Business English Club of UTE (BECUTE) and the Economic Students' Club of UTE (ESCUTE). These two clubs provide students with opportunities to learn important soft skills, including communication, presentation, critical thinking, team-work, etc. ESCUTE holds seminars and meetings every three months, in which invited business professionals share their real work experience with students to inspire them. BECUTE offers weekly English speaking sessions for students to practice their English. Students can also attend other clubs – Vovinam martial art club, dance club, skill clubs) to improve individual talents [*Exh.4.3: Some images of students activities]*

In the Introduction to IM course (4 credits), new students are allowed to visit various companies – Thai Binh Shoes, Yakult, Jabil, Acecook, and Brewery Vietnam – to observe the production realities. Those activities are definitely helpful for future endeavors. After that, in the learning process, FE often organizes optional field trips for students. By the end of the programme, students must have an internship (4 credits) at a company for at least 8 weeks, after which students must write a report analyzing the situation in the factory and provide solutions to improve the problems. This 8-week internship helps students apply theoretical knowledge in practical contexts. During the internship, students are supervised by an academic advisor and an instructor, who will jointly evaluate their performance using a rubric system. These activities aim to improve the practicality of IMP and help students confidently integrate into the working environment to improve the level of employers' satisfaction. Finally, students have to defend their thesis, developed from the internship, in front of a committee including both lecturers and enterprise managers. However, not all students get enough experience to clearly understand the corporate environment during the internship in their final year. FE, therefore, is building a new training programme to be launched in 2018 *[Exh.4.4:Images of students internship activities].*

From the first year, students can participate in science research seminars organized by FE. These seminars help students get acquainted with the research trends and research methods. Topics are connected with reality and help get students interested in researching and exploring new issues. According to our university's regulations, students who participate in scientific research will receive benefits such as funding and certification. *[Exh.4.5: Link of seminar "Students and scientific research"]*

FE encourages students to participate in international student exchange programmes. FE has educated 3 students from Laos and one from Indonesia, and one Vietnamese IMP student is participating in the SHARE programme in Austria. Our lecturers also take part in courses abroad; for example, the ITEC programme held by the Indian Government. Particularly, one IMP lecturer

attended the course "Agri-entrepreneurship and supply chain management" from 5/1/2015 to 13/2/2015. IMP lecturers have also been sent to the Philippines for English training courses. *[Exh 4.6: Images and certification of some courses]*.

For most efficient teaching and learning, the PDCA process has been applied as follows:

- Plan: Lecturers reach a consensus on the CLOs, teaching and assessment methods.
- Do: Lecturers implement the approved syllabi.
- Check: Lecturers make time for self-reflection at the end of each semester, and plan to improve immediately for the next semester. This activity is shown in the teaching portfolio. Besides, lecturers evaluate others through peer review activities. Students can evaluate lecturers by answering surveys and dialogues, which are held once a semester, with faculty and HCMUTE's President.
- Act: At the end of each semester, syllabi are adjusted based on feedback from students and other lecturers, and are applied in the next semester. *[Exh.4.7: Sample of students' feedback and improvement]*

Lecturers constantly improve both their knowledge and teaching methods. They attend various upgrading specialized courses and methodology training courses hosted by HCMUTE (e.g. Moodle) and other organizations, such as BUILD-IT (e.g. Master Teacher Training course), COMET, and USAID. *[Exh.4.8: Certificate courses of lecturer and some images of training course]*. Having good knowledge and teaching methods, the lecturers of our faculty are able to enhance students' abilities to achieve the expected learning outcomes.

4.3. Teaching and learning activities enhance life-long learning

FE always attaches great importance to the development of students' abilities, such as communication in foreign languages, mathematical competence and basic competences in science and technology, learning to learn, social and civic competences, sense of initiative and entrepreneurship, cultural awareness and good manners. All first-year students are tested for English proficiency, so that different classes are offered to suit their levels. To help students easily apply for jobs in the international labour market, some specialized subjects for third- and last-year students are taught both in English and Vietnamese. In addition, our faculty has a Business and Economics English Club to help students improve their English skills.

IMP consists of 150 credits, including 54 credits (36%) for General Courses, 26 credits (17,3%) for Fundamental Courses, 56 credits (38%) for Specialized Courses, and 14 credits (9%) for the Final Thesis. There are 21 credits (14%) of mathematics and sciences which have many applications in industrial management. For instance, Applied Statistics supports Business Statistics and Business Statistics supports Quality Management; and Econometrics supports Marketing Research *[Exh.4.9: Some syllabi]*

When first-year students learn the Introduction to IM course, they receive guidance on the methods to look for needed information. With the help of tutors they can find useful online information. Besides, the Library regularly organizes seminars to help students find materials for their study. Currently, IM students are being taught how to use Minitab software for data analysis in the 6 sigma method. In addition, a lot of software is used in IPM – SPSS for Marketing Research, Review for Econometrics, MS Project for Project Management. In the first year, the Introduction to Management course inspires students to learn through learner-initiated activities. Moreover, this course also provides students with methods of studying at a university. To arouse students' passion,

we often invite in successful alumni to share their work experience and the way to succeed in various courses.*[Exh.4.10:Sharing of alumni]*

Students are able to develop reflective learning through implementation of internship reports and graduation theses. In particular, students have to analyze the situation at a company and provide solutions to existing problems. Some specialized courses require students to write essays and give presentations in the classroom, so students have to search for materials, handle information, analyze results, read English papers, etc. As a result, they can hone their presentation, discussion, teamwork and critical thinking skills. Thanks to multiple industrial visits, seminars and internships, students can have access to modern machinery and corporate culture, thus updating their knowledge and coming up with new ideas.

Students are encouraged to join public events to enhance their cultural awareness. They participate in students' organizations and various activities, such as donating to poor people, attending the "Green Summer Campaign", visiting martyrs' mothers, giving gifts to children at love shelters, donating to flood victims, sending presents to children at Mid-Autumn Festival, handing out charity rice, supporting the exam season, attending Green Sundays, etc. The University evaluates students' social responsibility through a system of social work points at the end of each term. All students have to accumulate a total of 4 days of community service.

Through the Faculty of Innovation and Entrepreneurship, we encourage students to be creative and help them see their accomplishments through practical application. The University provides financial support for research, and always encourages students to do research, so that they can develop creative and critical thinking and research capacity. That way, graduates can enhance their career and lifelong learning. Completing IMP, graduates can study not only for master and doctoral degrees but also for special certificates to become experts in their special fields.

5. Student Assessment

5.1. The student assessment is constructively aligned to the achievement of the expected learning outcomes

The student assessment process at IMP includes the entrance examination and the formative and summative assessments. The entrance exam is based on the rules of the MoET and IMP students are selected annually through the National Entrance Examination [http://tuyensinh.hcmute.edu.vn].

In each course of IMP, students' performance is evaluated by formative assessment (50%) and summative assessment (50%) *[see appendix 2a for sample of exams]*. Assessment methods are designed to be aligned to the ELOs as in Table 5.1.

Table 5.1: Assessment methods constructively aligned with the ELOs

ELOs	Assessment methods		
	L (Low)	M (Medium)	H (High)
ELO 2.5, 3.3	Quizzes	Written Examinations	Oral Examinations
ELO 2.3, 4.1	Quizzes	Written Examinations	Oral Examinations
ELO 1.1, 1.2, 1.3, 3.1, 3.2, 3.3	Debates, Presentations	Assignments	Reports

ELO 2.1, 2.2, 4.2, 4.5, 4.6	Written Examinations	Oral Examinations	Essays, Course Projects
ELO 2.1, 2.2, 4.2, 4.5, 4.6	Written Examinations	Oral Examinations, Assignments	Essays, Course Projects
ELO 4.3, 4.4	Assignments	Essays	Course Projects

Formative assessment is undertaken during the semester using a variety of methods such as written examinations, oral examinations, quizzes, reports, essays, assignments, debates, and presentations. The contents of formative and summative assessments are designed to cover every CLOs specified in the course syllabi *[see Appendix 4]*

HCMUTE has an ISO procedure for composing tests, keeping tests reliably, replicating written tests, delivering, receiving tests, grading and organizing final written examinations of courses. According to this procedure, exam questions as well as the duration, difficulty level, grading scheme are firstly designed by lecturers, and then verified by DBA's head. For written tests, there is a checklist of CLOs to ensure that the contents of exam questions are aligned with the CLOs. Other assessment methods such as final reports, oral-defense are also designed following the CLOs clearly specified in the course syllabi. This alignment is listed on the examination paper and marking guides *[Exh.5.1: Procedure and sample of writing examination and marking guides]*

Students' English competence is assessed before they graduate with an English examination. Only those who get the minimum score of TOEIC 450 (2012 -2013) and TOEIC 500 (2014 - now) are eligible for graduation. Students' social responsibility is also evaluated as a required condition to decide whether they can graduate. Based on HCMUTE' regulations every student must accumulate 4 days of social activities *[Exh.5.2: Regulations of output English score; output English results of IMP students; regulation of social activities].* To classify students' achievements, HCMUTE uses a GPA scale of 10.0 as shown in Table 5.2.

Table 5.2: GPA scale

GPA scale of 10	Classification
8.5 – 10	A. Good
7.0 – 8.4	B. Fair
5.5 – 6.9	C. Average
4.0 – 5.4	D. Weak
<4.0	F. Too weak

5.2 The student assessments including timelines, methods, regulations, weight distribution, rubrics and grading are explicit and communicated to students

On the first day of all courses the student assessment policy including timelines, methods, regulations, weight distribution, rubrics and grading are clearly announced to students. It is also well defined in the course syllabi and posted on the E/M learning system and FE website.

At the beginning of every school year, HCMUTE also publishes a whole year schedule and a 15-week semester schedule to let students know the exact time they will take classes, exams, and write theses.

At the end of every course, a survey is conducted to receive students' feedback, based on which lecturers will improve this teaching and learning activities if needed *[see Appendix 4]*

The timelines for starting and completing graduate internships and the final thesis report are clearly shown in the University's annual academic plan (http://aao.hcmute.edu.vn/). To ensure that students meet IMP's ELOs, they are assessed before graduation. For example, the duration for internship in enterprises is at least 8 weeks; the internship results are evaluated through rubrics. Then, students need to complete their thesis under the guidance of an academic supervisor. A list of thesis topics as well as all the needed forms and regulations of the final thesis are published on of FE's website: http://fe.hcmute.edu.vn/. The final assessment is conducted by an independent reviewer and then students have to defend the thesis in front of a committee *[Exh.5.3: Regulations of graduation thesis; final thesis grades; Internship rubrics; Graduate thesis rubrics].*

The final exam schedules are published and announced via students' email accounts two weeks in advance. In addition, all the regulations which students have to follow in the examination rooms are also published on QAO's website. Students who receive low scores in formative assessment or those who think that they cannot pass some courses can withdraw those courses and re-enroll in the next semester *[Exh.5.4: Regulations of examination room; HCMUTE course withdrawing regulations].*

All assessment methods are carefully selected to align with the CLOs. All kinds of information are clearly presented in the course syllabi –the timeline, methods, regulations, grade weight, rubrics, etc. Rubrics are applied to both formative and summative assessments –essays, presentations, graduate internships, graduation theses, etc. Lecturers have to follow the syllabi approved by the Department. Students pass the courses if they get at least 5/10 of the grading score *[Exh.5.5: Evidence of assessment methods].* At the end of every semester, at lecturers' meetings, rubrics are revised based on lecturers' evaluations and comments. The revised rubrics are readily applicable in the next semester *[Exh.5.6: Reports on rubrics adjustment].*

5.3 Methods including assessment rubrics and marking schemes are used to ensure validity, reliability and fairness of student's assessment

IMP applies various methods for student assessment (Table 5.1) – multiple choice questions, written examinations, presentations, debates, essays, oral defense examinations, class attendance, discussions, assignments, homework, teamwork activities. With every method, lecturers give students clear evaluation criteria to help them understand what they need to achieve. All assessment methods are designed focusing on acquiring the knowledge, skills, and attitudes described in the ELOs. Attitudes and morality are evaluated through social activities such as "donating food to poor people", "green summer campaign", "entrance exam support campaign", etc.

Assessment procedures are strictly followed by lecturers and students to guarantee the reliability of student assessment. Additionally, mark schemes are explicitly listed in the final exam papers and answer keys. Scoring rubrics are constructed to ensure inter-rater reliability and fairness. For example, *rubrics of Human Resource Management course* are informed to students in advance by lecturers. For written examinations, the mark scheme scale is designed with the smallest division being 0.25 or 0.5 point *[Refer Exh 5.5].*

Marking schemes and answers of formative assessments are posted on the E/M learning system or directly given to students in class after midterm tests. For final written examinations, marking schemes and answers must be published on FE website within two days after the examinations. The

validity of formative assessment is also ensured and verified by collecting feedback from students during and at the end of courses. Final examinations have to be in accordance with the CLOs and approved by DBA's head *[Exh.5.7: Marking schemes in written examinations and answers].*

HCMUTE uses an ISO procedure for student assessment to ensure reliability and fairness. Every semester, the QAO conducts an internal audit to ensure that all faculties follow this process. To make sure that an exam is orderly administered, at least two independent invigilators supervise about 40 students. Besides, there are inspectors in the corridors to prevent cheating and help supervise all examination activities in accordance with the regulations of the University. Based on this ISO procedure, lecturers must provide a written report on student assessment at the end of the semester *[Exh.5.8: Report of Lectures for student assessment].*

Beside the requirements of using different tools and methods for student assessment, HCMUTE and FE also organize seminars and workshops to guide and share experience on designing and utilizing different assessment methods. Young lecturers can improve their teaching and assessment methods by attending workshops and training courses held by senior lecturers or experts. As a result, FE's assessment methods have become more diverse and more effective *[Exh.5.9: Workshops on teaching innovation].*

Assessment methods have been continuously improved. For instance, in 2015 the weight distribution of formative assessments was increased from 30% to 50%. Recently, there have been more non-traditional assessment methods essays, debates, and open book exams. These changes make students attend courses more regularly and more conscientiously. There are also more open book exams, aiming to evaluate higher levels of cognition, namely analysis, evaluation, and application, instead of only remembering or understanding.

With debates and presentations, students have opportunities to evaluate one another based on rubrics composed by lecturers. This activity helps students get actively involved in the learning process. All proofs of formative and summative assessments, exam questions, and lecture profiles are kept on file in FE office *[Exh.5.10: Rubrics for Strategic management course in formative assessments].*

5.4. Feedback of student assessment is timely and helps to improve learning

Timely feedback of assessments helps students evaluate and modify their study plan in each semester. Formative assessment results are given to students in class during teaching time. Summative assessment results are given to students within one week after the examination *[Exh.5.11: Assessment results on LMS: https://online.hcmute.edu.vn/].*

In order to grasp the level of students' comprehension, at the end of every lesson or chapter, lecturers usually give students some quick questions or 1-minute quizzes in class, or as homework. They are designed on the E/M learning website. Based on this result, lecturers go over a lesson again if necessary. With assessment methods such as group presentations and debates, lecturers give feedback to the presentation teams in front of the class so that the later groups can learn from the former *[Exh.5.12: Images of feedback for student assignment].*

Especially, with graduation internships and theses, supervisors meet their students weekly to timely give advice so that students can get over all the difficulties during the internship and in writing their reports and theses. This process guarantees that students can have the best performance for their theses and oral defense. On the other hand, the assessments of the reviewers and the judge

committees also help students identify their strengths and weaknesses. Committee members give students many valuable comments to improve their theses before final submission to FE *[Exh.5.13: Report of internship diary, feedback of reviewers and committee members].*

HCMUTE also has teaching assistants to help lecturers with their work. One of the most important duties of a teaching assistant is to assist lecturers to assess and make comments on students' assignments, homework, and tests under the guidance of lecturers *[Exh.5.14: Regulations on teaching assistants].*

5.5 Students have ready access to appeal procedure

IMP students have the right to appeal against their final exam scores based on the appeal procedure designed and approved by HCMUTE. Within one week after receiving the final scores, comparing with the marking schemes and answers published, students can request their papers to be re-graded. If students want to appeal, they have to fill a form at FE office. In case their appeal is allowed, they will get the re-grading results 5 days later. The re-grading process is done by another examiner. If the students still are not satisfied with the results, they can request permission to see their written tests and discuss them with the examiner personally. All answers and mark schemes are posted on FE website *[Exh.5.15: Appeal procedure; samples of student appeal cases].*

6. Academic staff quality

6.1 Academic staff planning is carried out to fulfill the needs for education, research and service

Based on HCMUTE's vision, mission, educational philosophy and development strategic plans, FE has developed its own mid-term development strategic plans for the period of 2013-2018 with the vision up to the year of 2020. The manpower plan was established to determine the number of staff recruitment, promotion, retirement, and termination and annually amended to be adapting to the real situation (*See Appendix 6a: Academic and support manpower plan*). These strategic plans have been set up to reach the FE's goals of fulfilling the needs for education, research and service as shown in **Table 6.1**.

Table 6.1: FE's manpower plans for the period of 2013-2018 (vision 2020)

Years	Academic staff	Masters	PhD holders	Prof./Assoc. Prof.	Retirement	Termination
2013	30	26	3	0	0	1
2014	31	27	4	0	0	0
2015	30	25	5	0	0	0
2016	31	24	6	1	0	0
2017	34	23	9	1	0	1
2018	37	22	12	2	0	1

Every year, the Faculty sets up specific plans for academic staff training and development based on the Faculty's manpower plans. In order to reach the objectives of short-term and long-term training, FE specifies the number of academic staff to take PhD programmes and professional courses. Academic staff are always encouraged to notify to FE for their selected programmes to receive support from both university and faculty. In this period, FE's manpower is young and has high

demand for professional development. Therefore, there are 13 FE's academic staff who have started their studying in PhD programmes both in Vietnam and abroad. It leads to the remarkable increase of number of PhD holders in the faculty in the next period when these academic staff finish their study. Besides, three cases of termination in 2013, 2017 and 2018 were derived from the requests of lecturers themselves.

At present, FE has 33 academic staff including 1 Assoc. Prof., 10 PhD holders and 22 Masters. Currently, 9 academic staff out of 22 Masters are PhD students both in Vietnam and abroad. The faculty's management board consists of two Vice Deans, one of whom is now in charge of the Faculty. In order to well manage the study programmes, the professional organizational structure is divided into 4 departments including Business Administration, Accounting – Finance, Commerce and Logistics which are in charge of majors of Industrial Management, Accounting, E-Commerce, and Logistics and Supply Chain Management respectively. For the purpose of creating appropriate appointment and effective management, the Faculty has planned for the succession and promotion for both faculty and department management boards. Every academic year, FE evaluates all academic staff on their performance and contribution to the development of the Faculty. Academic staff who have excellent results in professional development, scientific research and services are recognized for appropriate training and development strategic plans for the succession and promotion. Faculty and department management boards also yearly rearrange the re-deployment based on the academic staff's professional development and department's objectives *[Exh.6.1: Human resource development plan for academic staff].*

The retirement ages of male and female academic staff are 60 and 55 respectively as regulated by the government. However, Professors, Associate Professors and PhD lecturers are welcomed to extend their services for 7 and 5 more years respectively if they are still enthusiastic in devoting their contribution to the teaching career.

6.2 Staff-to-student ratio and workload are measured and monitored to improve the quality of education, research and service

According to MoET's regulations, the staff-to-student ratio must not exceed 1:25 applied for majors in social sciences. IMP is strictly complied with this ratio through ensuring number of academic staff and appropriate workload as figures shown in **Table 6.2**.

Table 6.2: Number of academic staff and their FTEs (Reference date of 15 June 2018)

Title	Male	Female	Total		Percentage of PhDs
			Headcounts	**FTEs**[*]	
Associate professor	1	0	1	1*1=1	100
Full-time lecturers in DBA	3	6	9	9*1=9	33.3
Full-time lecturers in FE	5	13	18	18*0.33=5.94	33.3
Full-time lecturers in other faculties (Applied Sciences, IT, FME, Foreign Languages)	3	1	4	4*0.25=1.75	75.0
Visiting professors/lecturers	4	2	6	6*0.25=1.5	55.6
Total	**16**	**22**	**38**	**19.19**	

(*) FTE stands for Full-Time Equivalent. This is a unit to calculate the investment of time. 1 FTE equals 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 per week is 0.5 FTE

Following up the Faculty's quality goals, the staff-to-student ratio is remained stable through academic years. The details are shown in **Table 6.3**.

Table 6.3: Staff-to-student ratio

Academic year	Total FTEs of Academic Staff	Total FTEs of Students	Student-to-Staff Ratio
2017-2018	19.19	386	20.11
2016-2017	18.11	413	22.81
2015-2016	19.52	410	21.00
2014-2015	19.85	463	23.32
2013-2014	20.43	521	25.50

Annual lecturer workload is stipulated by MoET and HCMUTE regulations and based on qualifications of academic staff, number of intake students, readiness of lecturers and teaching demand. Workloads for academic staff which are different for various titles consist of teaching, scientific research and other academic supports as described in **Table 6.4**.

Table 6.4: Standard hours per year for academic staff

No.	Title	Standard hours for academic staff			Total
		Teaching	Research	Support	
1	Senior lecturers, Professors	270	240	20	530
2	Lecturers, Assoc. Professors	270	210	30	510
3	Lecturers, PhD	270	195	60	525
4	Senior lecturers, Master	270	189	70	529
5	Lecturers, Master	270	177	80	527
6	Unofficial lecturers	270	75	180	525
7	Physical lecturers	270		260	530
8	Probationary lecturers	135		400	535

Academic staff are required to complete their workload as per the University regulations. These policies are issued based on ideas from key academic staff and are regularly amended to meet requirements of both university and lecturers. Academic staff can choose the workload scheme that best suits their ability and the goals of departments and faculty in teaching and researching. Therefore, most lecturers are satisfied with the standard hours for academic staff. The satisfaction ratio is measured by many ways such as the annual surveys conducted by QAO, departments' academic staff meetings, annual staff conferences at the Faculty and University levels. Lecturers also engage in a variety of support activities such as being consultants for students' clubs, being

professional advisors for students' contests, guiding students to visit factories and companies, instructing students to take internship in enterprises *[Exh.6.2: Regulations on working]*.

6.3. Recruitment and selection criteria including ethics and academic freedom for appointment, deployment and promotion are determined and communicated

At HCMUTE, the recruitment and selection process, and criteria are very clear and open. These criteria are identified based on the University's orientated regulations and human resource development plans conforming to regulations on standards for academic staff and Vietnam Labour Laws. They are regularly amended to meet the new requirements of the University's development strategy. From 2017, candidates who apply for being lecturers in the University must hold master degrees graduated from prestigious international universities or PhD degrees with good English competence. For instance, criteria for FE's lecturers must include professional qualifications relevant to the major, experiences in teaching and business environment, English proficiency, and IT and pedagogic skills. The recruitment notice including criteria is always published on the media including newspapers, the University website, and Facebook. The recruitment results are informed to candidates through the University website and direct email.

Based on the University's regular recruitment plans, FE suggests recruitment needs with specific specialization criteria for different positions of lecturers. The criteria are based on both the University's regulations and the Faculty's professional requirements *[Exh.6.3: HCMUTE's recruitment procedure]*.

Successful candidates start to work in FE as probationary lecturers for one year. During this time, the Faculty's management board assigns experienced and highly qualified lecturers as supervisors to guide them in teaching, research and support services. Performance evaluation is made by the supervisors at the end of the probationary period and it is then considered as the base for the Dean's suggestion to the University for the official contract. To become official lecturers, probationers must pass the promotion exam which is assessed based on the University's general requirements and FE's specialized knowledge ones such as certificates of pedagogy, English, IT, and ability of teaching through lecturing in classes *[Exh.6.4: Probationary policies]*.

HCMUTE's promotion policies are clearly determined and communicated to all academic staff. There are two types of promotion consisting of academic and management ones. According to MoET's and HCMUTE's regulations and Vietnam Laws of Higher Education, academic promotion is for the ranks of lecturers and academic titles. The path for lecturers to achieve higher ranks starts from lecturers (level III) to senior lecturers (level II) and then to distinguished lecturers (level I). For academic titles, the route derives from Master to PhD. to Assoc. Prof. and then to Prof. *[Exh.6.5: Regulations on senior lecturer, Associate Prof., and Prof. titles]*.

The process of management promotion is conducted democratically and publicly through the votes of staff credibility. For the appointment of staff to management positions in the Faculty such as Dean, Vice Dean, Head of Department and Deputy Head of Department, the Faculty's management board organizes evaluating and voting meetings to identify best candidates for specific positions. These candidates must have high professional qualification, teaching experiences, scientific research competence, management ability and experiences. According to regulations of the university and MoET, the Dean, Vice Dean in charge of training, and Head of departments must be PhDs. Vice Dean in charge of research must have experiences and ability in scientific research. *[Exh.6.6: Decisions on promotion and designation]*.

Salary increase which is regulated by the university is one of career incentives. Academic staff who have good working performance in each academic year are considered to take regular salary increase every three years. For excellent academic staff, they are recommended to gain early salary increase based on their performance results filed on KPIs system *[Exh.6.7: Policies on salary increase]*.

6.4. Competences of academic staff are identified and evaluated

According to HCMUTE's regulations of rights and duties of academic staff, they need to complete their tasks in three fields including teaching, scientific research and support service. These regulations are applied to all academic staff in all cases from probationary lecturers to official ones. Applicants must meet the requirements in these fields if they want to be recruited while current lecturers must show their competences and improvements through their index on KPIs system.

For teaching, academic staff must possess at least master degrees. They must also be proficient in English and have pedagogical certificate. Being responsible for courses in IMP, FE's lecturers design the course syllabi in which CLOs match to the ELOs. Their teaching must be continuously improved such as applying information technology through specialized software and LMS, renewing assessment methods, etc. In addition, one of the ways to enhance the teaching quality in FE is that lecturers get comments from management boards of Faculty and Department, and colleagues who attend their classes. At the beginning of every semester, DBA makes class observation plan for all lecturers who are instructors of available courses. Class observation groups include representatives of faculty and department, and lecturers. Moreover, lecturers also receive feedback from students at the end of the course through online survey. This is also one of the sources for the Faculty and Department to evaluate the lecturers' performance *[http://online.hcmute.edu.vn; http://danhgia.hcmute.edu.vn], [Exh.6.8: Teaching plans and assessment of FE's academic staff]*.

For scientific research, lecturers have to fulfil the university's regulation of research load for academic staff. There is a variety of research activities including: (i) Ministry level projects, (ii) University level project, (iii) Published papers on national and international journals, (iv) Published papers in proceedings of international conferences, (v) Published text books or reference books. Different types of research are evaluated with different scores. FE's lecturers have conducted research at different levels and types *[Exh.6.9: FE's scientific research]*

For support services, FE's academic staff devote their contribution in different services consisting of being advisors for students' clubs, being professional consultants for academic contests of students, working as members of Consultancy Board for Students, being organizers of visiting and internship for students in companies and factories, providing consultancy to potential students at high schools *[Exh.6.10: Service activities of FE's academic staff]*

6.5. Training and developmental needs of academic staff are identified and activities are implemented to fulfil them

The training and development for academic staff at HCMUTE are always seriously considered because they derive from the University's strategy and academic staff's needs. At FE, academic staff are always encouraged and supported to training and development. They can submit their suggestions for participating in training courses. Based on the University and Faculty development strategic plans, FE's management board gives the approval or makes adjustment upon discussing with lecturers (*see Appendix 6b: Executive summary of training and development plan for academic*

and support staff). At the end of the courses, lecturers are accountable for sending their reports on training and development to the University and Faculty. Most of FE's academic staff attend in key training activities which are encouraged and supported by the University and Faculty *[Exh.6.11: Regulations on competence development]*. The details are as follows:

- Long-term training: PhD programmes in Vietnam and abroad with the partly support from the University or gaining scholarships.
- Short-term training: professional training courses on educational management, curriculum and lecture design, student assessment methods such as BUILD-IT (Building University-Industry Learning and Development through Innovation and Technology), VULLI (Vocational University Leadership Innovation Institute), COMET (Connecting the Mekong through Education and Training) projects from the USAID (the U.S Agency for International Development).
- Specialized training courses: digital marketing, 6 sigma, human resource management, statistical software.
- Training courses on skills: pedagogical skills; English courses in Philippines, at HCMUTE and at foreign languages centers (ILA, ACET).
- Training courses on IT applying in teaching: teaching using learning management system
- Scientific seminars, workshops and conferences: workshop on logistics, conference on electronic commerce, workshop on accounting and auditing, seminar on finance.

In HCMUTE, there is a system to develop strategic and technical competencies of academic staff. The process of training and development for academic staff is performed by General Administration and Personnel Office (GAPO) as described in **Figure 6.1**:
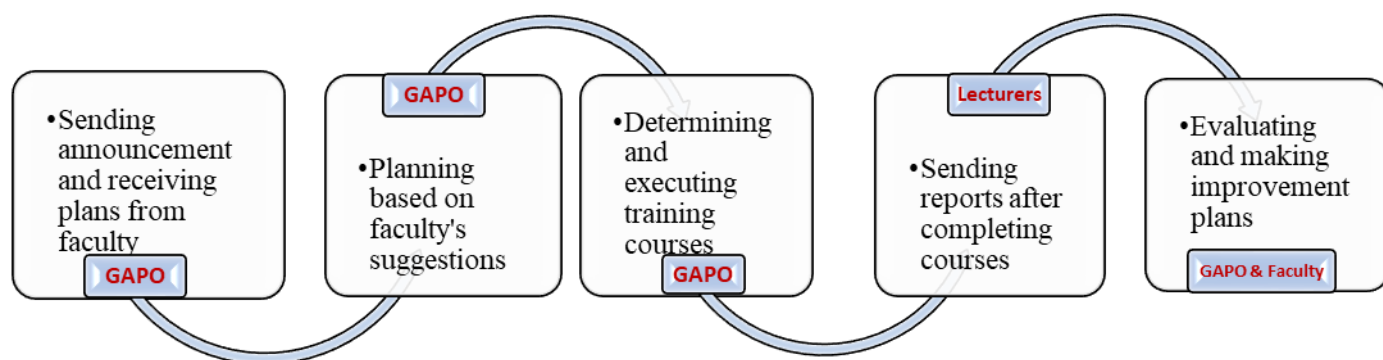

Figure 6.1: Process of training and development for academic staff

Faculty and GAPO evaluate the results of training based on the objectives and HR development strategy of the University. Training and development activities are always oriented and adjusted to align with the University's vision, mission and international integration.

HCMUTE's academic staff are encouraged to enhance professional knowledge, competence of scientific research and skills in order to meet the requirements of integration and the University's development strategies. The University annually sets up budget for training and development needs of academic staff. According to the statistics on financial needs for training activities up to 2020 and 2030 stated in the development strategy in the periods of 2011-2015 and 2017-2022, the proposed budget is 26.2 billion VND including 17 billion VND for doctoral degrees, 1.7 billion VND for master degrees, 5 billion VND for English skills, and 2.5 billion VND for short-term training. The actual training fees from 2012 to 2017 have significantly increased depending on the University's development strategies.

Moreover, the University issues regulation on reducing teaching load for lecturers pursuing doctoral programme. The reduction rate is 100% for lecturers who are PhD students from academic year 2016-2017 backward and 50% from academic year 2017-2018 forward. Tuition fee for PhD study in Vietnam would be covered by the University. Besides, HCMUTE has a regulation on special awards to academic staff who complete PhD programmes with the amount of 20 million VND, and up to 150% of this amount if they take early graduation. Especially, female academic staff are supported more 20% of the above amount. In FE, there are two lecturers being honoured to receive these awards. In addition, the University also gives funding in registration fee, travel costs and accommodation expenses for lecturers to participate in national and international seminars and conferences.

6.6. Performance management including rewards and recognition is implemented to motivate and support education, research and service

Performance management is one of the key factors of motivation to academic staff. In order to make an effective evaluation, HCMUTE has issued regulations on performance assessment to lecturers with definite workload for specific titles. Formerly, performance evaluation was made based on individual reports with comments and evaluation from departments. From 2016, KPIs system was established and applied to all academic staff in the University. It is a system to supervise lecturers' teaching, scientific research and support service. This evaluation is satisfactory to most academic staff because they have many options of workload to choose by themselves at the beginning of every semester *[www.kpis.hcmute.edu.vn]*.

To have an overall evaluation for all academic staff, the faculty synthesizes and compares the contribution of each lecturer based on their individual reports which are based on the performance scores stated on KPIs system. The Faculty's emulation and award board holds a staff meeting to have a democratic vote for all academic staff. The final results are used as the base for the Faculty's suggestions for emulation and awards from the university.

All recommendations from the Faculty are taken into consideration and investigation to have the official decisions. Chosen excellent lecturers are worthily recognized and awarded to motivate them for further achievements in the future. In order to achieve the objective in creating motivation, the university has set up a variety of benefits for good performance and rewards for excellent achievements *[Exh.6.12: Awards and emulation for academic staff]*.

As usual, FE's academic staff take salary increment after 3 uninterrupted working years. In order to stimulate lecturers' creativity, innovation and efforts, the university considers to grant the early salary increment or to suggest for certificate of achievement at ministry level to academic staff who have outstanding achievements and contribution. Good performance is always considered as the basis for lot of benefits for lecturers such as the increase of University's salary, higher ranking of lecturer, certificates of satisfactory progress of MoET, Prime Minister.

In FE, six academic staff have been honored to receive rewards for their achievements including two for publishing international paper (SCI), three for gaining PhD degree early, and one for devoting prominent contribution to the university and students. These rewards are granted as recognition for spiritual value and motivation *[Exh.6.13: FE's academic staff receiving rewards]*

6.7. The types and quantity of research activities by academic staff are established, monitored and benchmarked for improvement

Scientific research is one of three main tasks of HCMUTE's academic staff. Scientific research activities which lecturers annually conduct are research projects, textbook editing, published papers, syllabus and study programme design and revision. Scientific research projects at all levels are managed by ISO procedure which provides the guidance on the registration and implementation to lecturers. In addition, the university issues the policy on grants for lecturers who conduct scientific research projects. The value of the grants varies depending on the importance and significance of projects. Thanks to the effective management procedure on research and motivation from the university, all scientific research activities of FE's academic staff are aligned to the vision and mission of the university and faculty *[Exh.6.14: Research activities and related support policies].*

Every year, FE's academic staff conduct scientific research projects at different levels as shown in **Table 6.5**:

Table 6.5: Number of research projects of FE's academic staff

Level of projects	Number of research projects					Total
	2013	**2014**	**2015**	**2016**	**2017**	
University-level research projects	17	11	13	5	9	**55**
University-level featured research projects	0	2	3	5	6	**16**
Young lecturers' research projects	0	2	2	3	4	**11**
Total	17	15	18	13	19	**82**

FE's academic staff have high professional and serious investment in scientific research, therefore, they possess many published papers in prestigious national and international scientific journals. The details are shown in **Table 6.6**:

Table 6.6: Number and type of published papers of FE's academic staff

Year	Type of publication				Total	No. of publications per academic staff
	National journal	*National conference*	*International journal*	*International conference*		
2012	3	0	0	4	7	0.23
2013	3	0	0	1	4	0.13
2014	7	0	0	6	13	0.42
2015	8	2	0	0	10	0.33
2016	4	5	1	5	15	0.48
2017	12	0	6	4	22	0.65

7. Support Staff Quality

7.1. Support staff planning (at the library, laboratory, IT facility and student services) is carried out to fulfil the needs for education, research and service

Based on the University's 5-year development strategy for the period between 2011 and 2015, with projections until 2020 to become a leading multidisciplinary university in the field of technology

and vocational education, and the University's 5-year development strategy for the period between 2017 and 2022, with projections until 2030, the staff plan has been developed. This plan includes not only the planned number of staff, solutions and strategies to achieve the University's objectives, but also the measurement system and performance indicators. For instance, up to May 2018, HCMUTE had a total of 212 support staff in offices, departments and faculties (27.6% of the total number of employees), most of whom having Bachelor's degrees. Of the 188 support staff in offices and departments, 4 of them have a PhD (1.89%), 41 of them have a Master's (19.34%), and 3 are Associate Professors (14.15%) *(Table 7.1)*. To build a lean organizational structure, the University proposed that the total number of employees of the University could increase to 893 people in 2020, including 215 support staff (24.08%). HCMUTE has also set up an organizational restructuring plan, including standardization of activities and more efficient allocation of responsibilities and powers *[Exh.7.1: Human resource plan for support staff]*.

Table 7.1: Number and qualifications of support staff of some offices and departments

No	Support Staff	Highest educational attainment						Total
		Associate professor	PhD	Master	Bachelor	College	High school	
1	Dormitory Management	0	0	3	4	2	12	21
2	Project Management Office	0	0	1	2	0	0	3
3	Quality Assurance Office	0	0	4	2	0	0	6
4	Academic Affairs Office	1	0	3	8	0	0	12
5	Finance and Planning Office	0	0	3	10	1	0	14
6	Science and Technology Office	2	0	2	3	0	0	7
7	Enterprise Relations Office	0	0	1	5	0	0	6
8	International Relations Office	0	1	1	1	0	0	3
9	Strategic Management Office	0	1	0	1	0	0	2
10	Facility Management Office	0	0	3	4	2	1	10
11	Academic Inspectorate Office	0	0	2	3	0	0	5
12	Equipment and Maintenance Office	0	0	2	5	0	6	13
13	General Administration and Personnel Affairs Office (GAPO)	0	0	4	8	1	1	36
14	Security guards (under GAPO)	0	0	0	0	0	22	22
15	Press and Media Office	0	0	2	4	0	0	6
16	Admissions & Student Affairs Office	0	1	4	5	1	0	11
17	Library	0	0	2	9	2	0	13
18	Healthcare	0	0	0	1	0	2	3
19	Digital Learning Center	0	0	1	3	0	0	4
20	Student Services Center	0	0	2	4	0	0	6
21	Information and Network Center	0	1	1	2	2	1	7
	Total	**3**	**4**	**41**	**84**	**11**	**45**	**188**

As for FE, based on the work demands and the strategic plans of the University, the development plan of staff is reviewed every year. Besides one secretary, who is responsible for supporting lecturers and students, the FE has support teams for students: a consultant team, a website team, and a Facebook team.

7.2. Recruitment and selection criteria for appointment, deployment and promotion are determined and communicated

Every year, based on the overall manpower plan of the University, all functional units draw up their own tentative staff plans, including positions, numbers, and job requirements. Based on these, GAPO designs a tentative overall plan and submits it to the management board of the University for consideration. After making necessary adjustments, the Presidents issues the final total plan.

The process of recruitment is organized according to the ISO procedure, including the following steps: posting recruitment announcements on the media (the HCMUTE website and newspapers), testing, and interviewing. Applicants not only have to meet the main recruitment criteria such as having Bachelor's Degree relating to their jobs, but also have to pass specific IQ, IT, and English tests, as well as interviews with the Recruitment Committee. *[Refer Exh.6.4]*.

Successful applicants are assigned jobs by the Deans and Office Managers, based on job descriptions. For example, at the beginning of each month, every QAO staff has to plan tasks which they have to do, and at the end of the month, both staff and QAO's Head assess their performance. The probation period is one year *[Exh.7.2: Procedure for probation period accomplishment]*. During this period, probationers have to meet the set criteria and get acquired qualifications such as English skills, computer skills, and others. They also have to take exams to be assigned to proper ranks with corresponding specific functions and duties to become official staff. Staff subsequently can take exams to become senior staff.

7.3. Competences of support staff are identified and evaluated

As mentioned above, the requirements for every position of support staff are clearly described in job descriptions. For example, in case of the library, the staff's tasks are to help lecturers and students use library efficiently, classify books according to publishing year and authors, update books, help readers borrow and return materials, and purchase new books and reference materials every year. Hence they have to meet definite requirements, such as having a Bachelor's degree, English and IT skills, and professional certificates *[Exh.7.3: Job descriptions of support staff]*. Besides organizing activities such as The book writing contest in 2015, and Conference of Self-studying experience in 2015, the Library has also cooperated and signed contracts of distribution licensed works with outside partners such as Ybook, Lacviet, Vinapo to promote reading activities among students. Through the Library's website, readers can register for self- studying rooms, or implement MyOPAC to search for and read e-books. The Library often organizes seminars and workshops to instruct students and staff how to search for books, e-books and journals, and constantly creates more self-study space for readers. Every year, the Library surveys readers to evaluate its own activities, gain experience and find solutions for improvement. According to the 2016-2017 survey results, 93.9% of readers were satisfied with the attitude of library staff *[Exh.7.4: Competences of library staff]*.

To foster the development of an entrepreneurial ecosystem, HCMUTE also has the Innovation and Entrepreneurship Faculty to assist staff and students with developing ideas and products for the markets and transforming technology. This faculty also organizes competitions to develop the

entrepreneurship among staff and students, including Competition of Startups 2017, and Competition of Startups 2018. Through these competitions, teams can receive supportive budgets, as well as beneficial assessments. These activities reflected the competences of the Innovation and Entrepreneurship Faculty in promoting entrepreneurship in HCMUTE *[Exh.7.5: Competences of the Innovation and Entrepreneurship Faculty].*

Similarly, Digital Learning Center's responsibilities are to manage online classes and support lecturers and students through its website and Facebook page. The competences of the Digital Learning Center staff have been reflected through their activities to promote digital learning activities in HCMUTE. To encourage lecturers and students to apply the new technologies and improve the quality of online classes, some rewards have been proposed. Moreover, many interesting courses and workshops were organized, such as the Pearson Training course, the EM Learning and BOOST Project workshop *[Exh.7.6: Competences of Digital Learning Center staff].* The Information and network Center's tasks are to ensure that the IT system runs smoothly, manage the website of the University, operate computer rooms, assist staff and students, with accessing websites, and solve IT problems. To improve its support service quality, its performance is assessed by surveying staff and students every year *[Exh.7.7: Competences of Information and network Center staff].* Moreover, the Office of Admissions and Student Affairs' responsibilities are career orientation consulting, and coordinating with the University Union and Students Association in student affairs. All over, to understand students' aspirations, and support them in their personal and academic life, the University has various channels of communication – a Facebook page, a website, and a hotline. Students can also contact staff and board managers face-to-face or through emails.

FE secretary's tasks are to support students and lecturers in their studying and teaching, participate in FE's activities, organize competitions, as well as continue her own professional development, such as attending ISO courses, professional courses, and workshops. Her competences are also evaluated by supervisors based on KPI criteria. *[Exh.7.8: Competences of the FE's secretary].* Beside the secretary, FE also has a Consultant team, responsible for consulting, and mentoring students. Students can meet them in person or send emails to the FE to give opinions or ask questions relating to their studies, such as courses, employment orientation, scientific research, and academic contests. The FE also has a Website assistant team to take care of the FE's website *[http://fe.hcmute.edu.vn/]*, and a Facebook assistant team to take care of FE's Facebook page *[https://vi-vn.facebook.com/khoakinhte.dhspkttphcm/].* Every semester, based on the work demands, FE draws up the staff plan to take care of these communication channels *(Table 7.2).*

Table 7.2: Job responsibilities of staff of the FE in the second semester 2017-2018

No	Support staff	Number	Job responsibilities	Staff
1	Secretary	1	Support students with the University's regulations, perform administrative tasks, manage documents.	Le Thi Thoa
2	Consultant team	7	Provide students with guidance on choosing and registering for	Le Thi Thoa
				Dang Quang Vang

			courses, doing scientific research, and complying the University's policies relative to their studies.	Nguyen Thi Thanh Van
				Le Truong Diem Trang
				Nguyen Thi Chau Long
				Vong Thinh Nam
				Nguyen Khac Hieu
3	Website assistant team	4	Backup and manage information on the FE's website, such as the university's policies, recruitment information, writing news, scholarships, syllabus of courses, and examination schedules.	Phan Thi Thanh Hien
				Nguyen Phan Nhu Ngoc
				Nguyen Thi Thuy Duong
				Ho Thi Hong Xuyen
4	Facebook assistant team	1	Manage information of the FE's Facebook	Bui Thu Anh

HCMUTE also has to evaluate activities and services by asking students and staff to make comments on these issues. QAO organizes annual online surveys of students and staff on the service quality of the University, prepares a full report, and subsequently suggests solutions for improvement *[Exh.7.9: Surveys about serving quality of the university]*. According to the 2017 survey on students' satisfaction, service quality scored 77.87/100, while the competence and attitude of support staff achieved 79.4/100. These grades implied that students were satisfied with the service quality of support staff. Moreover, every semester, the faculties also organize face-to-face dialogues with their students to collect their opinions, and help them solve their problems. Students can also participate in the University's face-to-face dialogue. All of these activities are organized publicly to ensure transparency. Therefore, the University can easily review how well tasks are performed, gain experiences and find solutions. *[Exh.7.10: Reports about serving quality of the university]*.

7.4. Training and developmental needs of support staff are identified and activities are implemented to fulfill them

The educational and developmental activities follow an ISO procedure with three steps: planning, operation, and assessment. First, the units propose their own annual staff development plans (including information about staff and courses) to GAPO for consideration in July every year. Staff can also propose and register their own work and study plans at their departments and offices. The Deans of Faculties then collect, consider and send these plans to the University. Second, if these plans are accepted, in-house training courses will be organized. Staff are also encouraged to attend courses and workshops held by other organizations to improve their professional knowledge and skills. Finally, after finishing the courses, the staff who are trained have to report their study results to GAPO to be kept on file *[Exh.7.11: Procedure of training and development activities]*.

In details, GAPO organizes English courses and professional courses for staff who wanted to be promoted to senior staff. Moreover, the QAO organizes the ISO 9001: 2015 and internal

organizational assessment course. After attending these courses, staff have to take examinations to report their results. *[Exh.7.12: Training activities for support staff].* Besides, HCMUTE evaluates the courses' quality by surveying staff on courses' content. The training budgets for support staff, provided by HCMUTE, was increased to 315 million VND in 2017. These activities show that HCMUTE is deeply interested in staff development *[Exh.7.13: Financial policies]*.

7.5. Performance management including rewards and recognition is implemented to motivate and support education, research and service

At HCMUTE, instructions and criteria for performance evaluation are well communicated. With a focus on IoT, the KPIs system has been developed for online assessment. At the beginning of each month, staff have to register their plans based on specific criteria which match their responsibilities. The assessment criteria are listed in KPI systems, such as activities they join in, results of these activities, qualities, quantities, and compliances. After considering these plans, supervisors can approve them or suggest more activities for their staff. At the end of each year, both staff and supervisors can assess their performance based on the average points of twelve months. This system can help automatically and fairly assess their performance, and then report the results to HCMUTE *[Exh.7.14: KPIs implementation]*.

Based on these results, staff with high performance are considered for a salary increase and contract renewal (extended from 1 year to 3 years). On the other hand, staff with poor performance can be penalized with a reduced salary or other punishments, such as cutting chances to gain appellations. Additionally, every year, departments have to organize annual staff conferences to report on staff performance, gain experience and find solutions. Through these conferences, achievements and problems can be discussed to help all staff members identify problems and suggest solutions and future plans to get better results *[Refer Exh.7.8a]*. The titles such as "Primary Competitor" and "Progressive Labourer" are given to individuals who get high performance and receive high vote results. These entitle them to various rewards, such as bonuses, certificates for merit, and ahead-of-scheduel salary increases *[Exh.7.15: List of the civil servants who have been rewarded]*.

8. Student Quality and Support

8.1 The student intake policy and the admission criteria are defined, communicated, published, and up-to-date.

The enrolment procedure at FE, in particular, and at HCMUTE, in general, are in accordance with the regulations of the MoET. The National Entrance Exam is organized annually in many groups – group A (Maths-Physics-Chemistry), group A1 (Maths-Physics-English), group D (Maths-Literature-English) or Maths-English-Natural Sciences (Physics-Chemistry-Biology). Students are selected based on the MoET eligible score for application and HCMUTE's enrolment quotas.

Additionally, since 2016, HCMUTE has adopted a direct selection policy for excellent students and another selection policy based on high school transcripts. There are 4 categories to be directly selected for all programmes at HCMUTE. However, only category 1 and 4 are applicable to IMP (See Figure 8.1).

HCMUTE and FE have also developed a policy to attract talented students, as follows:

- A special scholarship for one candidate who has the highest admission scores in each major (the total score of 3 modules must be 26 points over 30 or higher); the prize is 1,000,000 VND for each point.

- 50% tuition fee exemption for the first semester of the first academic year for students graduated from talented high schools and high schools for the gifted.
- Directly enrolling students from the 200 top high schools in Vietnam with a reference letter from their principals *[Exh. 8.1: HCMUTE admission intake policies and criteria]*.

Not only focusing on attracting more talented students, HCMUTE also implements a priority admissions policy to encourage ethnic minority students, students from priority areas, and children of war invalids and martyrs to give them more opportunities to study.

HCMUTE disseminates information on these policies and criteria via newspapers (Giao Duc Thoi Dai, Tuoi Tre, and Nguoi Lao Dong), HCMUTE enrolment website, leaflets, the enrolment Facebook page, and local broadcasting channels (VTV, HTV9). "Midnight Talk with President" is conducted from January to March on every Tuesday and Thursday evenings to directly answer the questions of students and their families about the programmes they are interested in. Since 2017, FE members and experts from prestigious enterprises have cooperated in providing students with guidance on choosing suitable programmes. Besides, since April 2018, the President has provided consultancy to potential students from 9:00 pm until all the questions have been answered. The hotline number is 028-37225724 and the consultancy sessions have been broadcasted live on three channels UTE-TV, HCMUTE Facebook page and HCMUTE YouTube channel. The UTE–TV has been operating since 2017 to effectively communicate the University's admissions policies.

One of the most creative ideas to attract talented students is the recent initiative "Offline Coffee Meeting with the Presidential Board of HCMUTE" launched in HCMC and other cities. These consultation activities aim to shorten the geographic distance between HCMUTE and its prospective students. The President and Vice Presidents readily answer all the questions posed by students and their families to help them make the right choices.

Staff also eagerly contribute to the communication for HCMUTE during the enrolment season. HCMUTE also provides direct consultation at many high schools and the current students also bring the programme leaflets back to their former high schools for promotion.

Since 2007, HCMUTE and FE have organized Open-days annually to give career orientation to high-school students. Annually, more than 5,000 high school students attend this event to have a clear view of HCMUTE facilities, study environment, and receive a consultation on future employment opportunities *[Exh. 8.2: HCMUTE's communication activities]*.

8.2 The methods and criteria for the selection of students are determined and evaluated

Figure 8.1 shows HCMUTE's admissions process. This policy is widely announced on the media, so students can apply online on the University's admissions website. HCMUTE then selects students from the top down to HCMUTE enrollment quotas and matches the MoET eligible score for application and HCMUTE benchmarks.
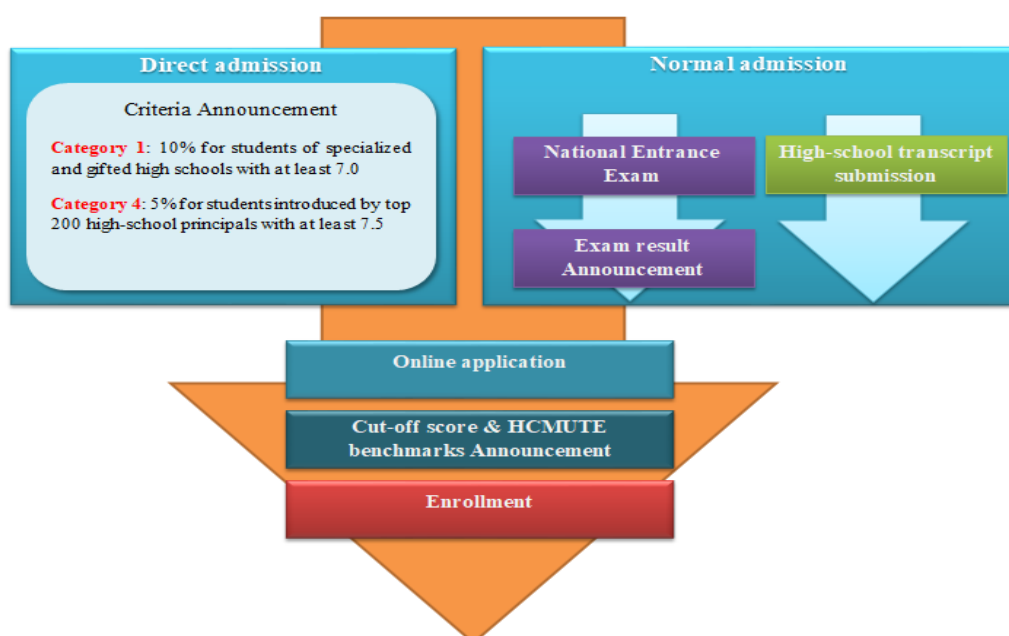
Figure 8.1: HCMUTE's admissions process

Table 8.1: Cut-off scores for enrolment in the IMP at different universities and MoET eligible scores for application in Vietnam in the last five years

IMP cut-off scores	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
HCMUTE	19.5	18	29.75	22	24	20.4
Ho Chi Minh City University of Technology – Vietnam National University (HCMUT)	20.5	20.5	23.5	23.5	25.25	22
University of Can Tho (CTU)	16.5	20	19.5	17.75	18.75	17.5
Thai Nguyen University of Technology (TNUT)	15.5	13	15.5	15	15.5	13.5
MoET eligible score for application	13	13	15	15	15.5	N/A[1]

Table 8.1 shows that HCMUTE's intake policy really works. From 2016 to 2018, the cut-off scores of the IMP has increased significantly and they were much higher than MoET eligible scores for application. They were also higher than those of CTU and TNUT, which are both prestigious universities in Vietnam.

Table 8.2: Intake of First-Year Students (last 5 academic years)

Academic year	Applicants		
	No. Applied	No. Offered	No. Enrolled
2017-2018	N/A[2]	85	87
2016-2017	N/A	70	73
2015-2016	N/A	100	96

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[1]N/A: From 2018, MoET no longer announces the eligible score for application. The universities will decide their own.

[2]N/A: Since 2015, the admissions have been based on the applicants' results in the National Entrance Exam or high-school transcripts. Therefore, most high-school students only applied when they knew exactly their scores.

2014-2015	279	100	95
2013-2014	1,354	100	107

Table 8.2 shows that from 2013 to 2017, although the cut-off score increased considerably, the number of enrolled for the IMP were always in line with the number of offered allocated.

With the above methods and criteria, HCMUTE has successfully selected many good students *[Exh. 8.3: Methods for student selection and evaluation].*

8.3. There is an adequate monitoring system for student progress, academic performance, and workload

After recruiting good students, HCMUTE adopts many policies to ensure the training quality as well as activities to support students in their study. HCMUTE has built an online dashboard system to manage student progress and academic performance. Every lecturer and student has an online system account (https://online.hcmute.edu.vn/). Lecturers can easily export student lists, import formative and summative assessment grades, and manage their own classes. Each lecturer can see students' feedback on teaching quality through this system to make appropriate adjustments.
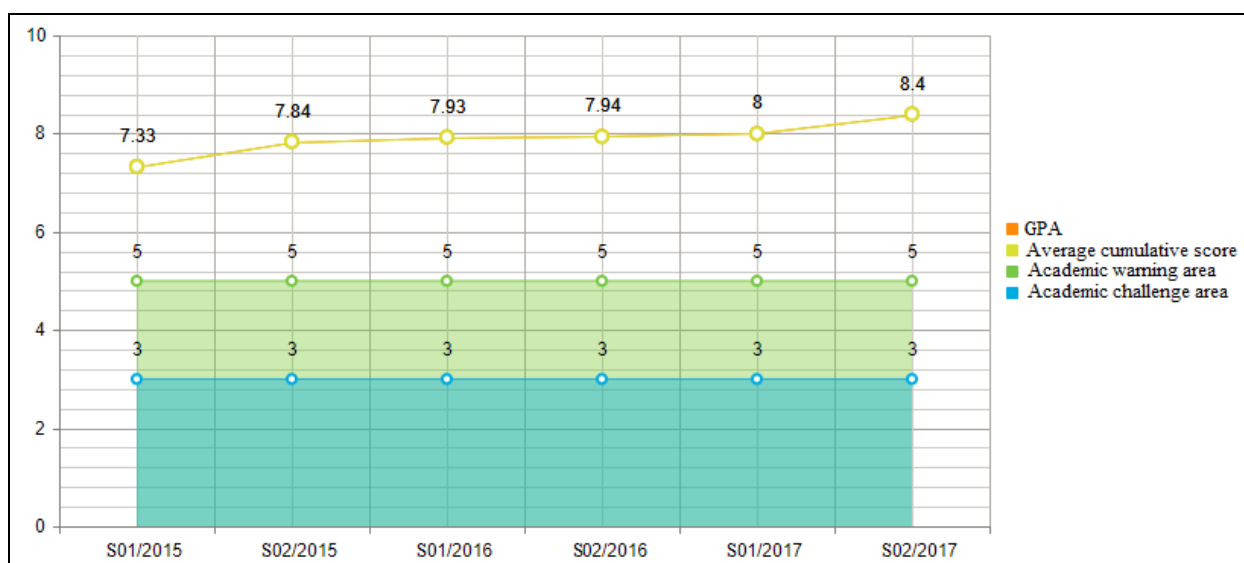
Figure 8.2: Chart of GPA of an IM student

Students can register for the course, track timetables, exam schedules, receive announcements and give their opinions about the teaching quality. They can also monitor their own learning progress through statistical charts of average scores over the semester (see Figure 8.2). Consequently, students are able to distribute their study load evenly for better achievements.

Faculties and Departments also manage the teaching and learning. At the end of each semester, through the academic warning system, ASAO implements point filtering and lists out those students who are subjected to an academic warning and sends the list to the Faculties. Board of faculties receive all students' feedback on the teaching quality. Hence, those lecturers who have negative feedback will be promptly reminded to make timely adjustments.

In the 2014-2015 academic year, AAO developed a dashboard system (http://dashboard.hcmute.edu.vn/) to monitor all data relating to student status and results. Thanks to this monitoring system, FE and IM Department can export data relating to student learning progress to provide timely support. The data includes ranking and grade values, accumulated

credits, training points, the accumulated number of days of social work (at least 4 days for the whole programme). FE Secretary and Dean, also use these systems to statistically count students who have earned the required number of credits, thereby classifying students based on the accumulated credits. If the results are unusual, the Advisory Team will have timely consultation *[Exh.8.4: The effectiveness of the monitoring system]*.

FE always ensures a suitable schedule for students. Since the establishment of FE in July 2006, the IMP has been trained under the credit-based education system, divided equally over 8 semesters. Since then, according to MoET regulations, FE has revised the study programme – from 180 credits to 150 (in 2012) and to 125 (in 2018). Now, the minimum number of credits required for a student per semester is 10 credits (for students with weak academic performance) and 15 credits (for students with average performance or higher). Apart from the above mentioned systems, the IM curriculum is also designed and distributed evenly between semesters to avoid overloading. Therefore, students can not only learn more effectively but also have time for extracurricular activities.

To ensure that new students meet the minimum English language requirements, HCMUTE requires them to take a screening test. If students are qualified, they will be exempted from some courses and begin to take courses that correspond to their level. This helps students save time and money *[Exh.8.5: Student study load and performance]*.

FE and IM Department periodically classify students by year based on the number of accumulated credits to find out whether a sudden drop occurs. In case students do not accumulate enough credits or do not graduate on time, FE and IM Department will have supportive measures. FE always keeps in touch with late graduates via phone to find out their own reasons. Based on those reasons, FE adopts measures to improve the percentage of on-time graduation *[Exh.8.6: FE supportive measures]*.

Table 8.3: Total Number of Students (last 5 academic years)

Academic year	Students					
	1st Year	2nd Year	3rd Year	4th Year	> 4th Year	Total
2017 – 2018	87	73	94	92	40	386
2016 – 2017	73	95	92	106	47	413
2015 – 2016	96	93	106	92	23	410
2014 – 2015	95	106	92	130	40	463
2013 - 2014	107	92	136	135	51	521

8.4. Academic advice, co-curricular activities, student competition, and other student support services are available to improve learning and employability

When students enroll, HCMUTE and FE have many activities to help students quickly get on well with the new educational environment. FE organizes new students' welcome events, at which students are introduced to the programme, HCMUTE vision and missions, and some alumni. Students are also instructed on how to use the library, and introduced to the offices where they can get help when needed.

To increase students' practical skills, FE often organizes academic competitions such as "Trial Interview – Real Success", "Future Leaders", etc. Many company directors are invited to serve as judges for these competitions. To understand clearly the course content, students visit factories and large enterprises such as TBS, Yakult, Jabil, Acecook, Viet Nam Beer.

During the academic year, FE always tries to organize many co-curricular activities. ERO regularly organizes many soft skill training courses for students. FE also has two famous clubs, BECUTE and ESCUTE where students can confidently express themselves and improve their soft skills.

Besides, HCMUTE endeavours to establish a quality learning environment that provides effective support for training as well as makes students feel comfortable. Self-study areas are available everywhere – in the basement, on the 5th floor of the central building, and in the libraries. There are tables, chairs and benches for students' self-study and relaxation in the shade of large trees all over the campus *[Exh.8.7: Co-curricular activities]*.

HCMUTE always listens to students' aspirations through faculty-level and university-level dialogues twice a year. Moreover, SSC regularly provides information on part-time jobs. The Compassion Corner has been created to share some of students' difficulties. Students can apply for the University's semesterly scholarships, government scholarships such as Nguyen Truong To scholarships, WUS-Germany scholarships, and scholarships sponsored by enterprises such as Nike, Datalogics, Pepsico, Bridgestone, BIDV, and ThyssenKrupp Materials. For students with problems related to their studies, FE has an Advisory Team. As for advanced students, FE and IRO help them to study abroad for a certain period of time in the form of student exchanges. FE also introduces them to companies after graduation *[Exh.8.8: Student support services]*.

IM department assigns instructors to supervise students' internship and assist them in writing their report. For quality assurance, each lecturer is allowed to instruct no more than 10 students for the internship report, and no more than 05 students for the final thesis *[Exh.8.9: Assistance for final project]*.

FE not only publishes recruitment information on FE website but also directly sends it to senior students via email. In addition, the ERO also regularly organizes job fairs to assist students in finding good jobs after graduation *[Exh.8.10: Orientation on future career paths for newly enrolled students]*.

8.5. The physical, social and psychological environment is conducive for education and research as well as personal well-being

In addition to imparting knowledge, HCMUTE also focuses on creating a comfortable learning environment that helps students learn effectively. Regarding to the physical environment, HCMUTE has built dormitories to ensure that students have safe and affordable accommodation. Students can study in comfortable self-study areas. The widespread Wi-Fi system makes it easy for students to access information, and download documents. The artificial grass football pitch, the dormitory's volleyball courts and the tennis courts are where students can exercise after stressful study time. Other facilities – souvenir shops, barbershop, self-service laundry, banking branch – are also on campus to meet students' needs. After stressful study time, students can take a nap in the basement of the central building or socialize around the campus.

HCMUTE organizes annual contests, such as the Performance Art Festival, the Student Sports Festival, the Amazing Race, and "I – HCMUTE Student Leader". Those are the opportunities for students to show their talents.

In addition, to teach students responsibility for the community, HCMUTE and FE often have volunteer activities, such as Blood donation, Visiting orphanages, Visiting Vietnamese heroic mothers, Spring Volunteer Campaign, Green Sunday Campaign, Green Summer Volunteer Campaign, etc. *[Exh.8.11: Volunteer activities]*.

Last but not least, with regard to students' health, the psychological environment is also a matter of special concern to HCMUTE. Students have health insurance and receive medical assistance. HCMUTE also regularly sprays insect prevention, and launches epidemic prevention campaigns. *[Exh.8.12: Psychological environment]*.

9. Facilities and Infrastructure

9.1 The teaching and learning facilities and equipment (lecture halls, classrooms, project rooms, etc.) are adequate and updated to support education and research

Facility investment is one of the highlights of HCMUTE. With a total area of over 21 hectares, HCMUTE is located at the eastern gateway to Ho Chi Minh City. The location is not too far from the city center so students can move in from other districts to study daily. Moreover, as Thu Duc is a suburban district, the cost of living and housing is relatively low, thus reducing financial pressures.

Physical space: HCMUTE has two campuses, one at 01 Vo Van Ngan, Thu Duc District, and the other at 484, Le Van Viet, District 9, with 144,332.5 m^2 of floor space, including 189 classrooms, a digital learning room, 156 workshops and laboratories, a dormitory and a stadium. The average classroom area per student is 3.95 m^2, meeting the requirements set by MoET. In its development strategies, HCMUTE always prioritizes the construction of new buildings to serve the teaching and learning activities – the High Tech Building (2007), the Multi-Purpose Building (2007), the Central Building (2012), Campus Dormitory 2 (2013), and the Stadium (2017). The 9-floor F1 Building will be completed in the near future. HCMUTE conducts annual surveys and makes reports on the level of satisfaction and the frequency of room usage (*see Appendix 9*). Based on these reports, HCMUTE makes a facility development plan. FE has two offices and one project room on the 3rd floor, two computer rooms on the 1st floor of the central building equipped with specialized software such as SPSS, Eview, optimization software, MS Project, etc. *[Exh.9.1: HCMUTE physical spaces]*.

Since 2008, EMO has collected procurement proposals from offices and faculties to understand the investment needs. After that, based on the annual budget and investment needs, EMO advises the Board of President on how to make and implement the equipment investment plans to ensure full support for teaching, learning, and management activities.

Equipment & tools: All offices and faculties in HCMUTE are equipped with computers connected to the Internet. The total number of computers in HCMUTE is more than 2,069, of which 1,512 computers serve the learners. Classrooms are equipped with projection equipment, many of which are attached to smart televisions that can connect easily to Wi-Fi and Bluetooth. They are also gradually equipped with air conditioners which helps lecturers and students more comfortable, especially on hot days *[Exh.9.2: Statistics of the number of projectors, computers, laptops]*.

Virtual Space: HCMUTE has upgraded its IT system for e-learning and mobile learning system as well as the operation of the University's management system. HCMUTE has specialized the equipment (Fortinet, F5) to ensure network security. HCMUTE also has anti-virus software and a firewall system to control access to the system *[Exh.9.3: HCMUTE virtual spaces]*.

Investment funds: HCMUTE can either use its own operating budget or make use of the national budget. Besides, HCMUTE also actively promotes linkages with domestic and international enterprises to seek funding for modern equipment to serve the teaching and scientific research activities. This gives students opportunities to have access to modern equipment.

In order to use the equipment effectively, HCMUTE places instruction manuals next to the equipment. EMO with a team of skilled technicians regularly carries out equipment maintenance and repairs. HCMUTE has clear plans and procedures such as procurement plan, workshop and equipment repair.

HCMUTE has a detailed plan for the 2 campuses, development plan and mid-term strategic plan from 2011 to 2015 with a vision to 2020, and orientations for development planning for the University from 2017 to 2022 with a vision to 2030. All of them serve as a basis for investment in building classrooms, and workshops *[Exh.9.4: Maintenance and Upgrading]*.

9.2 The library and its resources are adequate and updated to support education and research

HCMUTE always focusses on investing in a large number of books and reference materials to ensure the effective learning of students. The library (*http://thuvien.hcmute.edu.vn/*) was built long ago in zone A with an area of 1,430 m^2. In 2017, in order to better serve the learning of students, HCMUTE renovated the basement of the central building and transformed it into a high-quality library with an area of 1,500 m^2. The library also has four group work rooms that enable students to organize group activities.

The library is equipped with 63 desktop computers and 30 tablet computers, all connected to the Internet. New materials are always posted on the library website.

The resources of HCMUTE's libraries are numerous. There are 354,793 curricula, 119,890 books in Vietnamese, 8,510 books in foreign languages (available in the high-quality library), 7,984 graduate projects, master theses, and reports, 298 quality standards and more than 137 journals. By the end of 2014, HCMUTE had developed a university-wide portal system. In the field of economics and management, 2,736 books, textbooks and 1,178 e-books are available in the library.

At the beginning of every semester, the library sends all faculties a list of new materials to choose from based on their needs. Of course, the faculties may recommend purchasing materials outside of that list. The library will purchase materials based on faculties' requests *[Exh.9.5: Library resources]*.

For easy searching and exploiting the key research topics of the university, HCMUTE has bought the right to use 20 accounts from the National Agency for Science and Technology Information. HCMUTE also buys online databases to help provide more access to high-value academic and research resources across the world (Proquest, SpringerLink, IG Publishing, Eewoww, Science Direct, etc.). Furthermore, the Library has actively participated in professional organizations and associations such as the Vietnamese Library Association, the Vietnamese Library Association of Southern Academic Libraries (2007 - 2012) and Vietnam STE Consortium, etc. in order to enhance the capacity for cooperation and exchange of information resources *[Exh.9.6: E-sources]*.

To serve more than 25,000 students and nearly 800 lecturers and office staff, the library is divided into various departments to ensure the fastest response to the readers' needs. By 2015, the library had upgraded its library management software with a higher technology foundation, in line with the trend of mobile technology and the strong demand for electronic materials on mobile devices. Readers can look up documents, check the availability of documents in the library and sign up for a loan when the document is ready *[Exh.9.7: Interface and user manual of the OPAC]*. The library regularly conducts surveys to receive feedback from readers, thereby improving the quality of service when needed *[Exh.9.8: The reader's satisfaction survey]*.

Along with the provision of learning resources, the library also places emphasis on extra-curricular activities to increase readers' literacy skills and has held numerous workshops – "Digital resource exploitation in the library: Current Status - Technology – Solutions", "Finding and exploiting open databases for research and teaching", "Guide to using Vitalsource Bridge", "Books, reading culture and super-speed reading skills", etc. It also organizes activities to attract readers, such as the Book Fair jointly held with Thai Ha Books; the Changing old books for new books programme; the 4Hs Photo Contest; the workshop on "Applying IT and Internet of Things (IoT) in Library-Health activities for training, scientific research and start-up" *[Exh.9.9: Workshops organized by HCMUTE's library]*.

9.3 The laboratories and equipment are adequate and updated to support education and research

Due to the specificity of economics, IM does not have its own laboratories, but mainly focuses on the use of data analysis software. Currently, HCMUTE has 16 computer rooms available to all lecturers and students. Two of them have a seating capacity of 120 and are equipped with specialized software for economics such as SPSS, E-view, optimization software, MS Project, etc. Moreover, FE has 01 project room where IM lecturers can meet, guide students or organize group activities.

At the beginning of each school year, HCMUTE ask faculties and departments to make a plan to purchase equipment for training management and teaching. At the end of each year, HCMUTE evaluates the effectiveness of equipment utilization and asset inventory to measure and reassess the depreciation of equipment in accordance with the regulations on depreciation of fixed assets.

9.4 The IT facilities including e-learning infrastructure are adequate and updated to support education and research

HCMUTE has focussed on developing IT facilities in recent years. PSC management software is a specialized software system for many tasks in training, marking tests, asset management, library management, personnel management, staff and student feedback surveys, etc. This software is a useful tool for storing and managing general databases to help manage all activities conveniently and efficiently. HCMUTE has granted each staff member an email account with HCMUTE's domain name (@hcmute.edu.vn), an account on the online system, the LMS system (https://lms.hcmute.edu.vn), the document management system (http://eoffice.hcmute.edu.vn), and the KPI system (http://kpis.hcmute.edu.vn). Similarly, each student is provided with an email account with HCMUTE's domain name (@student.hcmute.edu.vn). Students can register for courses, view their scores, exam schedules, study information, evaluate the teaching quality on http://danhgia.hcmute.edu.vn/, and make online registration for all courses at

https://dkmh.hcmute.edu.vn. They can also view and download materials on http://thuvien.hcmute.edu.vn, or do self-study online at https: //lms.hcmute.edu.vn, etc.

In March 2015, the collaboration between HCMUTE and the HEEAP Alliance partners, including Arizona State University (ASU), Intel and Pearson, resulted in a new distance learning (DL) classroom with a seating capacity of 50, equipped with the latest technology in video conferencing and collaboration software and hardware. It is divided into 7 workstations, each fully equipped with virtual collaboration support tools. HCMUTE has been using this DL classroom for interaction between students, lecturers, ASU and other international higher education institutions around the world. With this facility, lecturers can design and promote e-learning activities. Since 2015, there have been over 475 online courses with 20 video lectures recorded and carefully edited before uploading by FE members *[Exh.9.10: Digital learning room]*.

HCMUTE has invested USD 1 million to upgrade the Internet line to ensure the smooth running of the Wi-Fi system in the main areas of HCMUTE. Hence, All staff and students can access free Wi-Fi for their teaching and learning.

9.5 The standards for environment, health and safety; and access for people with special needs are defined and implemented

HCMUTE tries its best not only to maintain the best learning environment but also the environment, health, and safety standards. HCMUTE strives to build a green, clean, beautiful and tobacco-free campus – smoking on campus has been banned since 2000. The whole campus is also periodically sprayed with insecticides to prevent dangerous diseases *[Exh.9.11: Announcements on disease control]*.

HCMUTE arranges health insurance for all staff and students. Staff have annual checkups in November. New students also have a complete physical examination upon enrolment *[Exh.9.12: Health care notice for Staffs]*.

In case of illness, lecturers and students are provided with free medical examination and treatment at the HCMUTE's Health Care Center. In severe cases, the Center will help refer them to specialized hospitals. If students show abnormal psychology, there are therapists at the Student Assistance Center (https://www.facebook.com/hotrosinhvienspkt/) and SSC to help them.

Food safety and hygiene standards are also maintained with periodic inspections at canteens on the campus and in the dormitories.

To ensure security on campus, HCMUTE has a team of 22 security guards working 24/7. HCMUTE regularly updates the lecturers and students on the situation of local safety and security for greater vigilance. HCMUTE security hotline is displayed in all prominent positions, so everyone can make contact quickly when security issues occur.

Environment safety has always been a high priority at HCMUTE. Laboratories have regulations on labor safety, warnings, and first aid kits. Firefighting equipment is located throughout the campus. Annually, HCMUTE coordinates with District 9 Fire Prevention Team to conduct fire prevention training *[Exh.9.13: Safety regulations]*.

10. Quality Enhancement

10.1 Stakeholders' needs and feedback serve as input to curriculum design and development

Since 2012, HCMUTE has firstly applied CDIO approach in the study programme. IMP was developed with the total of 150 credits involving important knowledge in natural sciences, social sciences, and fundamental and specialized knowledge of the major. The programme was designed based on the orientations and guidelines of MoET, mission and vision of the university, and feedbacks of stakeholders including academic staff, experts from other universities, enterprises, students, and alumni. By organizing conferences and meetings, the feedbacks on the curriculum from these stakeholders were collected through questionnaires and direct comments. All feedbacks were carefully evaluated and considered to identify ELOs. This is the basis for the revision of the study programme in accordance to the social and economic development trend *[Exh.10.1: Feedbacks from stakeholders and faculty's actions of improvement]*

The University has applied ISO procedures for the implementation process consisting of planning – getting feedbacks – conducting statistics of results – suggesting improvement actions to gain satisfaction from the stakeholders. Thanks to the procedures, valuable opinions from employers and feedbacks from students and alumni are collected for showing how they satisfy with the IMP. Specifically, the annual collection of feedbacks from stakeholders is implemented through different methods including emails, online surveys, and meetings. After finishing the collection, the faculty and department management boards select valuable and appropriate feedbacks and suggestions to submit to the FE's Academic and Scientific Committee. The IMP is amended and updated upon receiving the approval of the Committee. Then, the updated programme is disseminated to academic staff through meetings within the faculty. It is also posted on the university and faculty websites for the purpose of informing to external stakeholders *[Exh.10.2: Procedure for evaluating stakeholder's satisfaction with curriculum]*.

The evaluation and revision of IMP are implemented annually to ensure the continuous improvement. During the implementation of the programme, feedbacks are continually collected by different ways including surveys to companies where alumni are working, suggestions from academic staff in the faculty meetings, and feedback and comments from students in dialogue every semester. All collected ideas are positively considered and appreciated for the purpose of showing an overall view on the effectiveness and drawbacks of the study programme *[Exh.10.3: Seminars on the assessment of IMP]*.

10.2 The curriculum design and development process is established and subjected to evaluation and enhancement

Complying with ISO procedure issued in 2005 and revised in 2015, the curriculum must be revised at least every two years and redesigned every 4-6 years. Based on stakeholders' suggestions and feedbacks, the adjustments have been made from 5-7% of specialized courses managed by FE *[Exh.10.4: Procedures for the curriculum design and development]*. Besides referencing opinions and evaluation from stakeholders, the curriculum design was benchmarked with this of prestigious universities in Vietnam and abroad such as Hochiminh City University of Technology (HCMUT), Can Tho University (CTU), Missouri State University (MSU) and University of Gavle.

FE's Academic and Scientific Committee plays an important role in the curriculum design and development. DBA and its academic staff are responsible for collecting feedbacks from external stakeholders for IMP. FE's Academic and Scientific Committee, then, evaluates and makes final decisions for the content of the curriculum *[Exh.10.5: FE's Academic and Scientific Committee]*

IMP is designed based on the results of conferences and meetings with related parties. In order to ensure the consistent quality assurance, FE implements a lot of activities to control and evaluate the effectiveness of the study programme including monitoring teaching schedules, and taking proposals and feedback from students, academic staff, alumni and enterprises. The revision of IM curriculum has been regularly implemented from 2012. The remarkable revision was conducted in 2012 in which the curriculum was changed in total of credits. It consists of 150 credits in comparing to the curriculum applied from 2008 with 180 credits. In addition, some courses had to be revised by integrating, replacing, eliminating, and reducing credits when redesigning the study programme as shown in **Table 10.1.**

Table 10.1: The comparison of 180-, 150-, and 125-credit programmes

Clusters	**180-Credit curriculum** *(applied from 2006 to 2011)*	**150-credit curriculum** *(applied from 2012 to 2017)*	**125-credit curriculum** *(applied from 2018)*
General courses	**50 credits** **(27,8%)**	**54 credits** **(36%)**	**30 credits** **(24,0%)**
Introduction to IMP	0	3	3
Mathematics and natural sciences	19	23	9
English	12	9	0
Information technology	5	3	2
Social sciences and humanities	2	0	0
Political education and general law	12	12	12
Electives	*0*	*4*	*4*
Fundamental courses	**43 credits** **(23,9%)**	**26 credits** **(17,3%)**	**39 credits** **(31,2%)**
Theoretical courses	40	22	33
Project courses	1	0	0
Experiment, practice	2	0	0
Electives	*0*	*6*	*6*
Specialized courses	**73 credits** **(40,5%)**	**56 credits** **(37,4%)**	**46 credits** **(36,8%)**
Theoretical courses	68	50	40
Project courses	1	0	0
Electives	*4*	*6*	*6*
Internship	7 ⎱ 7,8%	4 ⎱ 9,3%	4 ⎱ 8,0%

Graduation thesis / examination	7	10	6
Total	*180*	*150*	*125*

Since 2018, IMP is considerably revised its ELOs, courses in the curriculum and assessment methods with a total of 125 credits. Complying with the MoET 's Circular and HCMUTE's Decision, the new 125-credit study programme of 125 credits emerges differentiated improvements in comparison to the previous one for the purpose of adapting to the integration requirements and creating more opportunities for students to transform their majors when they need. Some dominant changes are stated in **Table 10.2.**

Table 10.2: Comparison the requirements between the 150-credit and 125-credit programmes

The dominant changes	**150-credit curriculum** (*applied from 2012 to 2017*)	**125-credit curriculum** (*applied from 2018*)	**Note**
General English courses	9 credits	0 credit (General English courses excluded from the curriculum)	Students have to study English themselves and fulfil English requirement for graduation
English requirement for graduation	TOEIC 500 or equivalent	TOEIC 550 or equivalent	English level is higher
Credits for inter-major courses	0 credit	6 credits	Students have opportunities to gain knowledge supported to their strengths and be willing to change their major to other ones.
Massive open online courses (MOOC)	0 credit	6 credits	Students can choose the famous online courses for the substitution of courses in the curriculum.
Specialized courses are instructed in English	06 courses were taught in bilingual lectures	At least 10% of specialized courses are instructed in English	Vietnamese studying materials are gradually replaced by English ones for updating world wide knowledge.
Duration of internship	10 weeks	Whole semester (15 weeks)	Students spend more time at enterprises (It is called Enterprise Semester).

Courses in the curriculum are integrated together for the purpose of creating more opportunities for students to practice and experience. Most academic staff in FE have participated in training courses conducted by BUILD-IT in Vietnam. The results of training are very useful for the improvement of IM curriculum because lecturers have learned specialized knowledge and experiences in ELOs-

based or project-based curriculum design, active teaching/learning methods, creating assessment plans for effective assessment and evaluation of student outcomes attainment.

IMP is recognized by universities abroad through student exchange programme. Specifically, one student of the IMP has recently studied at University of Applied Sciences Upper Austria. Meanwhile, one Indonesian student who comes from Atma Jaya Catholic University of Indonesia has conducted graduation thesis under the supervision of DBA's academic staff *[Exh.10.6: Students' information in student exchange programme]*.

In order to create the continuous quality improvement, the Faculty has annually build quality strategic plan under the University's directed orientations. The Faculty and Department management boards are responsible for implementing and controlling the established plan. FE's Vice Dean who is in charge of academic affairs and training quality assurance coordinates with head of DBA to make plans for QA activities every semester. In addition, functional delegations including personnel from QAO, AAO and experts have semesterly assessed the implementation of the faculty's quality strategic plan *[Exh.10.7: FE's quality strategic plan]*.

10.3 The teaching and learning processes and student assessment are continuously reviewed and evaluated to ensure their relevance and alignment

In HCMUTE, AAO and QAO are responsible for the implementation and quality assurance of the teaching and learning process. ISO procedures are applied to control the training activities of the curriculum to ensure the relevance and alignment to the ELOs.

Every semester, QAO conducts the survey of teaching quality through online pages. Lecturers may see students' feedback on http://online.hcmute.edu.vn for their teaching process. Besides, the survey results from QAO are sent to faculty's management board in which the result of each lecturer is shown clearly. It helps the faculty manage the performance of all academic staff to make continuous improvement. In addition, departments, based on feedback and class attendance, hold meetings with all lecturers to share experiences and propose improvement activities *[Exh.10.8: Results of students' feedback on teaching quality of academic staff]*.

Course evaluation is also one of the important bases for IMP improvement. When total programme credits are decreased from 180 to 150 in 2012, some courses were integrated together to ensure the compatibility to the changes. As a result, teaching and assessment methods were significantly improved. Academic staff are encouraged to apply a variety of teaching methods including group discussion, presentation, bilingual lectures, and LMS. In some courses, students are required to do final topics or projects so that they must know how to apply theory into reality. Instructors of courses are responsible for designing course rubrics to assess student work *[Exh.10.9: Samples of rubric for assessing courses]*.

For the purpose of helping students achieve CLOs, assessment activities are mentioned in each syllabus which is introduced to students at the beginning of the course. The assessments for theoretical courses are divided into two parts including formative and summative assessments. In order to be adaptive to the IMP improvement, the assessment ratio was also changed into 50% for formative assessment and 50% for summative assessment instead of 30% and 70% respectively *[Exh.10.10: Samples of assessment activities]*.

Improvements in the teaching and learning of IMP are continuously implemented to ensure that students achieve ELOs. Diversified requirements to FE's academic staff are issued to ensure the

relevance and alignment in the improvement of the curriculum. Lecturers also have high awareness of their responsibilities when instructing courses through applying positive teaching methods, using presentation lectures, making videos, applying LMS for delivering lectures and receiving student work, and compiling bilingual lectures. Addition, visiting lecturers who have the high position in enterprises are kindly invited to share their experience and help the students connecting the knowledge which is studied at university and practices.

Beside diverse teaching methods, assessment methods are changed correspondingly. A remarkable change is the application of rubrics in the assessment of graduation thesis from 2016 to replace the old assessment one. The advantage of rubrics is that they involve clear criteria for each part in the students' work.

Student assessment is strictly controlled by ISO procedures in which AAO, QAO, AIO and FE are responsible for the supervision of the implementation of academic staff. In addition to base on AUN -QA accessor's feedback on former study programmes at HCMUTE, the assessment activities are dramatically improved as followings:

- The lecturers are trained the assessmen methods.
- There are at least two assessment activities for formative grading.
- The examinations align with expected learning outcomes.
- The assessments are continually implemented for the whole semester.
- Courses in practice, internship, presentation, and topics are assessed more accurately by rubrics.
- Teaching portfolio is made by lecturers in each semester to synthesize all documents and activities done in the teaching and learning process *[Exh.10.11: Samples of teaching portfolio]*.

10.4 Research output is used to enhance teaching and learning

Many researches in FE are applied in the teaching and learning in IMP. Lecturers conduct researches related to courses which they are instructing including compiling textbook, reference book, workbook; creating question bank *[Exh.10.12: List of applied researches of FE's lecturers]*

Every semester, FE holds one or two seminars for lecturers to share knowledge and experiences. It is also considered as research and very helpful for academic staff to learn from each other and apply good points in their teaching *[Exh.13: Topics of seminar for FE's academic staff]*.

Students of IMP are encouraged to do research projects under the assistance and supervision of FE's academic staff to link theory to reality. Their researches focus on activities and projects in the area of IM with high feasible recommendations. From studying theory to conduct researches, students have learned precious lessons both in core activities in manufacturing firms and soft skills of teamwork and idea generation *[Exh.10.14: Students' research topics]*.

10.5 Quality of support services and facilities (at the library, laboratory, IT facility and student services) is subjected to evaluation and enhancement

Being aware of the importance of the quality of support services and facilities, the University has continuously evaluated them in order to enhance the efficiency. Based on the collected results, the university has investigated, updated, adjusted or issued corresponding regulations. Many support activities on services and facilities have been enhanced such as two computer labs (A4-101 and A4-102) with applied software for supporting the teaching and learning of IMP, new project rooms for students' scientific research activities and doing theses, more powerful wifi system covering more

places, football stadium contructed in 2017, and library equiped with air-conditioner, hammocks, and massage chairs *[Exh.10.15: Results of surveys on students' satisfaction on quality of support services and facilities].*

Faculty and department have also improved and amended drawbacks in the training, for instant, the supplementation of new text books, especially books in English language; the establishment of Advisory Team for assisting students in their studying, related policies, and spirit support; and the dissemination of answer keys of all courses on the faculty's website. All of those improvements are seriously implemented so that the university reaches the goal of continuous enhancement in training quality *[Exh.10.16: List of members in the Advisory Team].*

With the serious consciousness in meeting the expectations of students in their studying, the university has executed a variety of enhancement in services and facilities. Remarkable improvements which contribute to the increase of students' satisfaction are pointed as followings:

- Most of rooms for theory studying are equipped LCD as the replacement of the old projectors *[Exh.10.17: Renovation, repairs and acquisition].*
- Quantity of computer labs are increased with more new computers for students to practice.
- DLC gives more guidance and assistance to lecturers on applying LMS system to provide convenience for students' self-study.
- Since 2012, library has established web portal for providing digital information and documents to readers. It has also got licenses in using 20 digital accounts from National Agency for Science and Technology Information which are very helpful for research and information exploration. In addition, project on the establishment of HCMUTE Learning and Information Resource Center is on the progress of construction. The new high-quality library and self-study area in the basement came into operation in 2017 with the total surface of 1.500 m^2.
- Dormitory always efforts to enhance service quality. It was awarded the title of "Cultural Dormitory" in 2013. In order to meet the needs of students, the university plans to construct one more dormitory for arranging the accommodation of most HCMUTE's students.

- SSC was established in 2013 with the objective of assisting students in their studying, part-time jobs, entertainment, physical gymnastics, soft skills, and psychological consultancy, etc. Moreover, Compassion Corner which is one of significant activities of SSC was established and operated based on voluntary contribution of alumni, academic staff, support staff, enterprises and students for the noble purpose of assisting students suffering difficult conditions in their studying.
- New self-study area on the 5th floor of Central Building was opened from October 2016. Moreover, another new one which is on the basement of Central Building has officially operated since September 2017.

10.6 The stakeholders' feedback mechanisms are systematic and subjected to evaluation and enhancement

There are many types of feedback collection which are held by HCMUTE including online and paper surveys, direct meetings and conferences. The details are presented in **Table 10.3** *[Exh.10.18: Feedback's mechanisms].*

Table 10.3: Types of surveys on the study programme at HCMUTE

Survey's name	Object	Frequency/ year	Survey time	Implementation methods
Survey of teaching quality	All students	2	The 8th week of each semester	Online online.hcmute.edu.vn
Survey of new graduates	New graduates (3 months after graduation)	2	May & November	Online http://danhgia.hcmute.edu.vn/
Survey of alumni	Graduates (1 year after graduation)	1	October	Online danhgia.hcmute.edu.vn/
Survey of students' satisfaction on service quality	All students	1	January	Online http://danhgia.hcmute.edu.vn/
Survey of staff satisfaction with the workplace	All current staff	1	November	Online danhgia.hcmute.edu.vn/
Survey of employer	Companies	1	October	Online – Google form Paper based survey Email/Post

The stakeholders' feedback mechanisms are continuously improved to ensure that it is systematic and subjected to evaluation and enhancement. HCMUTE's current survey procedure conforms to PDCA process. FE and DBA implement the improvements upon receiving feedback from stakeholders as following:

- Plan: different surveys on IMP are designed and delivered to stakeholders for receiving feedbacks.

- Do: FE and DBA synthesize and analyze the results collected from stakeholders, make plans, and then executed the improvements.

- Check: actions of correction and prevention are supervised by QAO. FE and DBA investigate the feasibility of the plans through checking the improvement level of the plans.

- Act: after evaluating the effectiveness and limits of the improvement plans, FE and DBA identify the next correction and improvements for the upcoming time.

In addition, the President monthly arranges the schedule for directly meeting with students and academic staff in order to deliver his answers to questions and receive feedback on the University's activities and development strategic plans. Besides, other chanels of communication such as email, facebook, and zalo are utilized to get feedbacks. The University always creates opportunities for academic and support staff to express their ideas through the annual staff conference.

The survey activity is always evaluated and enhanced to collect precious and diversified opinions, suggestions and comments for the effective improvement of the study programme. Remarkable enhancement which is appreciated by stakeholders consists of the followings:

- Questionnaires for surveys are revised every year to update new matters.

- FE and DBA which are in charge of the study programme positively make plan for improvement and file evidences on enhancement conforming to PDCA cycle *[Exh.10.19: Evidences on the enhancement of the study programme].*

- New activities of surveys have been recently executed on the University service quality, working environment, etc. *[Exh.10.20: Results of survey on working environment].*

11. Output

11.1 The pass rates and dropout rates are established, monitored and benchmarked for improvement

Based on the ISO Corrective and Preventive Action procedure issued in 2011, at the beginning of the academic year, FE Board have to establish the planned pass rates and dropout rates. Since 2014, HCMUTE has established a Dashboard system to adapt to AUN-QA for managing and monitoring the pass rates and dropout rates to proactively handle the problems in time.

FE Board and Head of departments are decentralised to manage the pass rates and dropout rates of the programme every academic year using the Dashboard system. At the end of each academic year, FE makes a final report based on the given data from the dashboard system to compile statistics and analyse the results, and subsequently sets up action plans for improvement. Some potential improvements are set as FE quality objectives for the next academic year. This report is circulated to all academic staff in FE *[Exh. 11.1: Dashboard system], [Exh.11.2: IM's quality target annual training plan and performance report].*

In order to graduate, students have to gain 150 credits of courses with a GPA of at least 5.0 on the 10-point scale. Based on collected statistics, the pass rates and dropout rates in the last 6 academic years are summarized, analysed and presented in Table 11.1; the planned vs. actual rates of pass and dropout are presented in Table 11.2.

Table 11.1: Pass rates and dropout rates of IM students in the last 6 academic years

Academic year	Size	Pass rate (%)			Dropout rate (%)			
		3 years	4 years	> 4 years	1st year	2nd year	3rd year	4th year and beyond
2014-2015	95		-	-	2.1%	1.1%		
2013-2014	107		75.7%	15%	0.9%	0		
2012-2013	94		54.3%	31.9%	2.1%	0		
2011-2012	139		79.0%	14.0%	2.0%	0	5.0%	0
2010-2011	138		75.4%	16.7%	0.7%	1.4%	0	5.8%
2009-2010	114		70.2%	18.4%	0	4.4%	3.5%	3.5%

Note: - Academic Year 2014-2015 intake and beyond are not yet to be graduated

The results in Table 11.1 indicate that the average pass rate in 2009-2013 was 90.12% and the average dropout rate was 5.9%. The remaining 3.98% neither passed nor dropped out because beginning from intake 2008 students were allowed to stay at university up to 8 years to complete their study programmes.

The pass rate increased gradually between 2009-2011, then began to reduce slightly in 2012 and 2013. This is because since intake 2012 HCMUTE has applied the 150-credit study programmes with higher requirements of English skills, computer skills and other soft skills, which certainly demands more self-study ability to be qualified for graduation. FE set planned pass rates for the academic years 2009-2013. A comparison between the planned and dropout rates is presented in Table 11.2.

Table 11.2: The comparison between planned and actual rate of pass and dropout (2009-2013)

Year	2009-2010		2010-2011		2011-2012		2012-2013		2013-2014	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Pass rate	90%	88.6%	90%	92.1%	90%	93%	90%	86.2%	90%	90.7%
Dropout rate	10%	11.4%	10%	7.9%	10%	7.0%	10%	2.1%	10%	0.9%

Despite some fluctuation across the years, the pass and dropout rates are, in general, still according to plan, the dropout rate being strongly reduced between 2009-2013. The lower actual pass rates in 2012-2013 were acceptable because of the higher requirements of the study programmes as mentioned above. FE always looked for ways to improve the ratio in the following academic year. At the end of each academic year, a meeting with all IM's staff was organized to evaluate the teaching quality and other activities. After that solutions were proposed to increase the pass rate and decrease the dropout rate, as shown in Table 11.4 *[Exh. 11.3: The FE's meeting minutes and final report of semester].* As a result of these solutions, the dropout rates (Table 11.1) in the academic years 2011-2012 and 2012-2013 were lower than before.

11.2 The average time to graduate is established, monitored and benchmarked for improvement

On average, students can complete their programme in 4 years. The maximum study period allowed is up to 8 years, after which students are forced to stop studying. According to HCMUTE's regulations, if students can not finish the programme within 4 years, they are considered for late graduation *[Exh. 11.4: Regulation on HCMUTE's study programme].* The average graduation time of IM students is shown in Table 11.3 *[Refer Exh. 11.2].*

Table 11.3: Planned and actual average graduation time

Academic Year	2010-2011		2011-2012		2012-2013		2013-2014	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Within 4 years %	70%	75.4%	70%	79%	70%	54.3%	70%	75.7%
More than 4 years %		16.7%	20%	14%	20%	31.9%	20%	15%

The average actual rates of in-time graduation in IMP was higher than the planned average graduation time of 70% in the academic years 2009-2013. In comparison, this rate was also higher than that of other technical programmes in HCMUTE. The University and FE have taken many

measures to improve the pass rate and in-time graduation rate. The list of solutions is presented in Table 11.4.

Table 11.4:   List of solutions for continuous improvement

No.	Issues	Solutions
1	Students are suspended and extend their time of study for failing multiple courses or failing the same course many times.	1.1 Organizing extra classes and adding substitute courses for failed students in the summer semester to help them finish the course. 1.2 Teaching assistants support students in studying difficult courses. 1.3 Head of Department semesterly updates AAO's list of students risking being suspended and contacts them to find out their problems and timely support them. 1.4 Lecturers constantly strive to improve their teaching to actively engage students in their courses. FE board semesterly gathers students' feedback on lecturers' teaching quality online (https://online.hcmute.edu.vn), ask lecturers with low performance ratings for an explanation, then find solutions for improvement. 1.5 The University designs online classes on the LMS system https://lms.hcmute.edu.vn to provide all the detailed and diversified documents and lessons for students' self-study before and after class to help them acquire full knowledge of each course.
2	Some students spend too much time on part-time jobs to support their families.	2.1 HCMUTE has financial aid policies for poor students: tuition fee reduction and low-interest student loan. The Youth Union also grants annual scholarships to needy students (nearly 2 billion VND). FE labour union has also set up a fund to help poor students, contributed by all FE staff. 2.2 Launching a scholarship fund for poor staff members as part of the programme "Inspiring HCMUTE's youth dreams", the total value of scholarships in 2017-2018 being more than 600 million VND. 2.3 The Presidential Board provided 111 scholarships for poor students influenced by typhoon number 12 in 2017 in Khanh Hoa and Phu Yen provinces with the total amount of 111 million VND.

		2.4 In 2017, HCMUTE built UTE's Compassion Corner to help needy students, mobilizing contributions from companies and alumni with the accumulated amount of 1,986,000,000 VND.
		2.5 Arranging part-time job opportunities for students on the recommendation of FE staff (SSC and Youth's shop provide recruitment information on FE website or Facebook page.)
3	Students don't realize the importance of some courses for their future jobs and are not interested in their majors.	3.1 HCMUTE has made significant improvements to the recruitment guidance process to give potential students an insight into their future jobs. + Online: Youtube (UTE-TV Channel) + Organising the programme "Coffee and milk tea with HCMUTE's President" in some provinces, "Midnight talk with HCMUTE's President" 3.2 The Introduction to IM course in the 1st academic year aims to provide career orientation to students. 3.3 In every course, lecturers present the detailed syllabus, the ELOs and sharing real experiences with students. 3.4 Elective courses are provided in the study programme to help students have different career choices relating to their major. 3.5 Seminars with alumni and entrepreneurs are organised to motivate students and provide essential information and soft skills to help students adapt to their future jobs.
4	Students lack self-study skills, and other soft skills such as English, IT, presentation, and teamwork.	4.1 Students have opportunities to improve their English and soft skills in various students' clubs – English clubs, Economic students' club, and other organizations in the University. 4.2 Integrate teaching soft skills for students into every course 4.3 FE and ERO organise seminars on soft skills

5	Students face obstacles both in academic and personal life and may need help from the faculty and lecturers.	5.1 The Advisory Team has been established to help students with their problems. This team meet students in FE office or answer their questions via FE website or Facebook page.

11.3 Employability of graduates is established, monitored and benchmarked for improvement

Based on the ISO procedure for evaluating stakeholders' satisfaction with the study programme, QAO conducts a survey of alumni 3 months after their graduation through an online questionnaire. The results are collected, reported and sent to the relevant units, as well as posted on the website of QAO *[Exh.11.5: The Procedure for evaluating stakeholders' satisfaction with curriculum].*

Table 11.5: Number of IM students having a job within 3 months after graduation (2014-2018)

Graduation time	2014	2015	2016	2017	2018
Survey time	Jun&Dec	Jun&Dec	Jun&Dec	Jun&Dec	Jun
Immediately after graduation (%)	26.73%	45.71%	37.5%	53.33%	57.1%
Within 1 month after graduation (%)	28.71%	17.14%	12.5%	22.22%	14.3%
Within 3 months after graduation (%)	9.9%	7.62%	19.6%	10%	14.3%
Still looking for a job (%)	25.74%	20.95%	7.1%	5.56%	0
Pursuing another plan in the future (%)	8.91%	7.62%	23.2%	8.89%	14.3%
Accumulation for duration of 3 months (%)	65.34%	70.47%	69.6%	85.55%	85.7%
Average rate of employment (%)	75.3%				

Table 11.5 shows that the possibility of finding jobs within 3 months after graduation of IMP graduates was approximately 75.3% on average from 2014 to 2018. *[Exh.11.6: The survey form and the report of graduate students form 2014 to 2018].*

Heading towards a higher rate of employment for students, FE has taken some appropriate actions to improve soft skills and English ability for students which are considered as important keys to their future jobs; to build a good cooperation between FE and many enterprises for getting more career oppotunities for students; and to improve the study programme to meet the labour market's requirements. These solutions are presented in Appendix 11a *[Exh. 11.7: Solutions for improving the rate of employability].*

11.4 The types and quantity of research activities by students are established, monitored and benchmarked for improvement

Following HCMUTE's ISO procedure relating to providing guidance to students on doing research, students are allowed to undertake one research project annually. The registration procedure is based on the *Instruction guide for student research project*, which consists of 7 steps. Students' projects have to be completed and evaluated within one year. The University's research fund is apportioned among the faculties, based on the number of research projects registered. FE will then allocates its received fund to its students' projects appropriately.

At FE, normally, before students embark on the projects, lecturers give them guidance on correcting their research proposals to align to the ELOs, as well as the vision and missions of FE and HCMUTE. Students' supervisors monitor and control their research activities for the duration of the project.

However, in comparison with the other faculties in the University, the number of students' research at FE has been slightly lower in the last four years; as shown in figure 11.1 *[Exh 11.8: FE students' research projects]*.

Number of FE students' research projects from 2014 to 2017
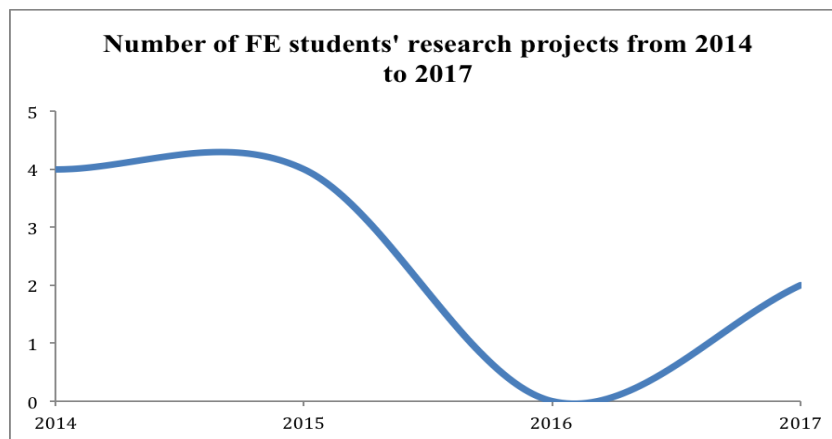
Figure 11.1: The number of FE student's research projects from 2014 to 2017

Recognizing students' difficulties in doing research, FE has already carried out some activities to motivate more and more students to do research. The first activity is to hold a seminar on "Students with Science Research" once a year since 2014 to raise students' awareness of the importance of scientific research, and to guide students on how to do a research project as well as help them solve challenging issues relating to scientific research *[Exh. 11.9: Plan and Images of Seminar "Students with Science Research"]*. The second measure is to modify the curriculum. DBA has introduced research-related courses such as research methods and data analysis into the curriculum to assist students with their future projects. Much more importantly, FE has assigned suitable lecturers to supervise students.

11.5 The satisfaction levels of stakeholders are established, monitored and benchmarked for improvement

In order to continuously maintain and improve the programme quality and increase the level of satisfaction of stakeholders, HCMUTE has set up a system of indicators and guidelines to monitor and manage according to the PDCA cycle.

a. Student's feedback

Following the *"Procedure for evaluating student's satisfaction during the training period"*, feedback from students is collected in many forms, including organizing dialogues at faculty and university level to receive suggestions from students. Specifically, since the second semester of the academic year 2015-2016, these meetings have been livestreamed and the switchboard has directly received questions from students and their parents.The President meets students in person on the last Thursday of the month according to the working schedule. Students can also send their comments via comment boxes, the website, email, and Facebook.

In addition, based on the *Procedure for evaluating stakeholder's satisfaction with curriculum,* at the end of each semester, students must evaluate the teaching quality of their lecturers online *http://danhgia.hcmute.edu.vn/Login.aspx* before entering the examination season. It can be seen in figure 11.2 that the teaching quality of FE lecturers tends to increase over the semesters and is almost higher than average. This improved teaching quality results from students' feedback through surveys and meetings *[Exh. 11.10: Student feedbacks].*
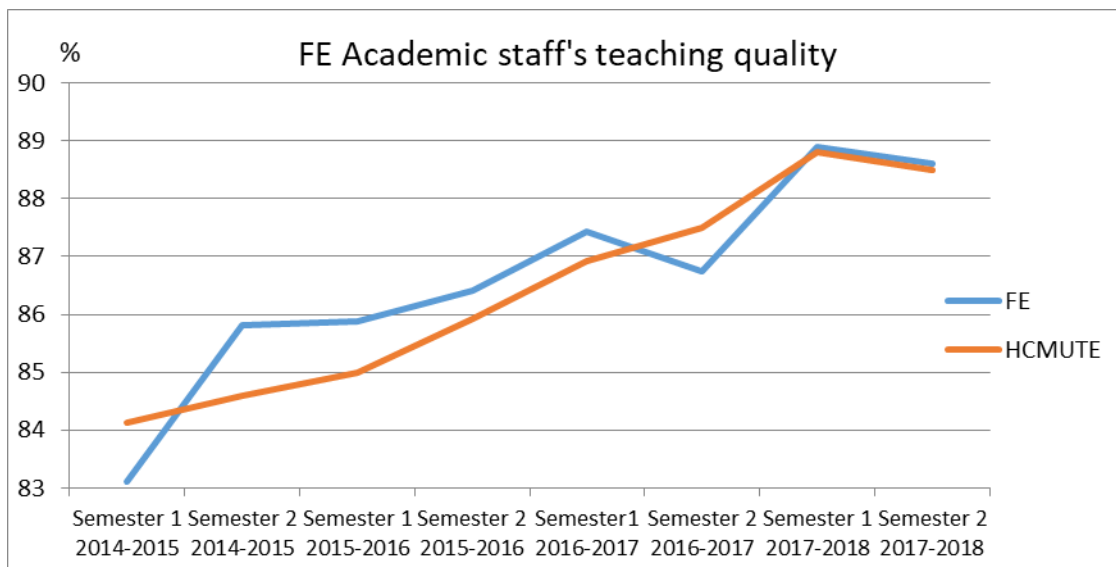
Figure 11.2: FE academic staff's teaching quality from 2014-2015 to 2017-2018

Besides, in order to evaluate the satisfaction of students with HCMUTE's quality service, in 2014, QAO started to conduct an online survey at the following link *http://danhgia.hcmute.edu.vn/Login.aspx*. In case the complaints have not been resolved at the relevant units, students will proceed according to the "*Student complaint resolution procedure*"*[Refer Exh.11.10].*

Based on students' survey results and minutes of students' meetings, FE conducts improvement activities as shown in appendix 11b.

b. Alumni's feedback

According to the *"Procedure for evaluating stakeholders' satisfaction with curriculum",* students after 3 months of graduation are surveyed to collect information about their satisfaction with the study programme and their employment situation, as well as their feedback on how to improve the quality of HCMUTE education in general and of FE in particular. As the survey results show in table 11.7, most FE students could find jobs 3 months after graduation, the average percentage being 75.3 % from 2014 to 2018. Especially, this percentage in the last two years have remained at around 85.5% *[Refer Exh.11.6].*

FE organizes an annual alumni reunion to create a bridge between alumni and undergraduates, get feedback on the curriculum and other faculty activities, share experiences with students in learning, work and career orientation. All alumni's comments are recorded in the alumni reunion report. Alumni evaluate whether IM curriculum can meet professional and technical demands and compare the competence of our students with that of similar major graduates from other universities. Their feedback has proved very helpful in improving FE's training quality as in appendix 11b *[Exh. 11.11: Alumni feedbacks].*

c. Academic staff, support staff and employer's feedback

Conferences are annually held at FE and university levels. Those held at FE aim to get the opinions of all FE lecturers and nominate lecturers to attend the University conference in which faculty staff directly interact with the Presidential Board to solve problems and proposals.

In addition, QAO conducts an annual online survey of *HCMUTE staff on working environment* to get feedback from staff on working environment, and the results are shown in figure 11.3 *[Exh.11.12: Stakeholders' feedbacks]*.
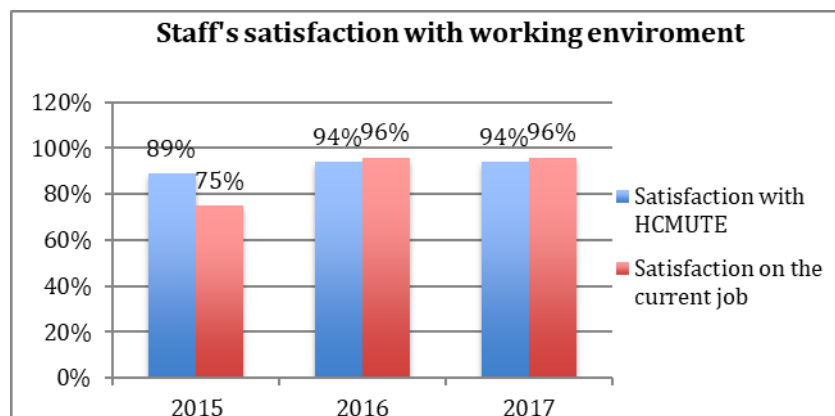
Figure 11.3: HCMUTE staff's satisfaction with the working environment from 2015 to 2017

To get information on employers' satisfaction with our graduates' quality, the University organizes annual job fairs on campus. FE itself receives feedback from the enterprises through seminars, during the process of taking students to visit the factories, and online surveys. From 13/04/2018 to 27/04/2018, FE got feedback from 34 companies on FE students' ability to meet the working requirements, and the results showed that the companies considered that 100% of our students had completed their work successfully. In particular, they highly appreciated FE students in terms of specialized knowledge and communication skills, and the rate of planned recruitment of FE students was 97%. Many students after graduation or even during internship have been hired by the companies which they registered for the trainee programme. However, businesses suggested that the English skills of FE students should be improved. After receiving feedback, FE has taken measures to improve the situation, as described in appendix 11b *[Exh.11.13: Solutions for improvement based on stakeholders feedbacks]*.

PART III: STRENGTHS AND WEAKNESSES ANALYSIS

Criterion 1. Expected Learning Outcomes

Strengths

- The ELOs in IMP are designed following the ISO procedure of HCMUTE and IMP is benchmarked against similar programmes of prestigious national and international universities.

- The ELOs are based on MoET standards, stakeholders' feedback, in compliance with the development strategy as well as the vision of HCMUTE, FE and the goals of IMP.

- The ELOs are built with five main groups: general knowledge, professional knowledge, professional skills, soft skills and attitude and awareness. The ELOs are logically mapped onto the goals of IMP and are fully integrated into the curriculum. They help students commit themselves to lifelong learning and daily learning practices.

Weakness

- It is difficult to choose business representatives with specialized knowledge to give feedback on ELOs and the feedback rate is not as expected.

Plans for improvement

- A structured mechanism for effectively gathering feedback from stakeholders needs to be built and activities need to be enhanced.

Criterion 2. Programme specification

Strengths

- IMP specification provides enough information for students and related stakeholders through websites of the department, FE and AAO, student handbook, and posters in front of FE. IMP is reviewed and evaluated according to the ISO procedures, adapted to meet the labour market and social requirements. Changes of IMP are updated and quickly posted on websites for announcement to stakeholders.

- IMP description clearly shows the programme objectives as well as the ELOs of the programme, the semester-timetabled curriculum, and the teaching and assessment strategies. Courses in the programme are reasonably divided into semesters to increase students' learning effectiveness.

Weakness

- IMP needs to continuously improve to meet the social needs. The ELOs relating to soft skills and the latest discoveries should be updated to teach students. To do this, we need to attract excellent lecturers able to teach and help students get more opportunities to practice in business environments. It is difficult for us to attract them and can take us much time to find optimal solutions.

Plans for improvement

- The department keeps on working closely with enterprises to develop and enhance the programme.

Criterion 3. Programme Structure and Content

Strengths

- IMP was benchmarked against similar national and international programmes so that the programme structure balances general courses and specialized courses.

- The curriculum was designed based on the ELOs and based on the missions and vision of HCMUTE and FE.

- For one ELO, there are several courses contributing to its achievement, and the contribution is controlled by the correlation matrix between ELOs and courses. They also help students choose their future careers.

- The curriculum has an Introduction to IM course taught in the first semester to provide students with university study skills and motivation.

- HCMUTE has an ISO procedure to guide the evaluation and periodic update of the curriculum.

Weakness

- IMP provides students with little time to study and practice in factories. The curriculum has only 4 credits for internship in semester 8.

Plans for improvement

- The programme should provide students with more time to study and practice in factories. FE should cooperate more closely with enterprises. Internship should be included earlier in the curriculum and its duration should be longer.

Criterion 4. Teaching and Learning Approach

Strengths

- Teaching and Learning Approach is articulated with HCMUTE's educational philosophy and FE's vision and missions. This information is publicized on the website, so that all stakeholders know about it.

- In IMP, there are a variety of teaching and learning methods such as lectures, problem solving, case studies, field trips, discussions, presentations, debates, teamwork, self-study, practice in computer rooms, and project-based learning. Lecturers are dynamic and eager to learn new things to broaden their knowledge and enhance their pedagogical skills.

- Extracurricular activities are provided in order to help students get more energy and inspire them to learn and achieve the best results.

- IMP is a specialized programme which mainly focuses on students' lifelong learning ability. Therefore, graduates are able to study not only for master's degrees and doctorates but also for professional certificates which help them become experts in their special fields.

Weaknesses

- Some instructors who are responsible for the same course have different methods of teaching, even focussing on different aspects of knowledge. Therefore, students get confused.

- Some lecturers do apply active student-centred teaching methods, but there are still some drawbacks that need to be overcome.

Plans for improvement

- For courses to be instructed by several lecturers, teaching content and methods must be discussed and agreed on by all of them, and then approved by DBA.

- To familiarize themselves with new teaching approaches, FE lecturers are encouraged to participate in various teaching methodology training programmes, such as the Master Teaching Training programme run by BUILD-IT. Eight academic staff of FE have recently joined this training course and have made positive comments about it. DBA is considering sending more lecturers to such helpful courses so that they can adopt new teaching techniques to achieve more effectiveness.

Criterion 5. Student Assessment

Strengths

- Student assessment is well defined in the course syllabi and posted on the E/M learning system and FE website. Furthermore, at the beginning of every school year, HCMUTE publishes a whole-year schedule and a 15-week semester schedule. This helps students understand exactly which time of the year they will take classes, exams, and write theses.

- All the assessment methods are carefully selected to suit the content of courses and align constructively with the CLOs. All kind of information is clearly presented in the course syllabi.

- HCMUTE also adopts the ISO procedure to ensure equal assessment between students. QAO conducts an annual inspection to ensure that all faculties follow the procedure.

- Beside the requirements of using different tools and methods for student assessment, HCMUTE and FE also organize seminars and workshops to guide and share experience on designing and utilizing different assessment methods. Assessment methods have been continuously improved. For instance, weight distribution of formative assessment has been increased from 30% to 50%.

Weaknesses

- The assessment methods in some courses are not aligned with the CLOs.

- Rubrics can also restrict students' mind power. They could feel that they need to complete the assignment strictly according to the rubric instead of taking the initiative in exploring their learning. If the criteria in the rubric are too complex, students may feel overwhelmed by the assignment.

Plans for improvement

- Lecturers have to improve their assessment methods based on feedback from students and businesses.

- Beside using rubrics, lecturers should also give clear feedback to students on their work.

Criterion 6: Academic staff quality

Strengths

- In all strategic development periods of the University and Faculty, FE has set up manpower plans to effectively utilize human resources. FE's academic staff are young, enthusiastic, and well-qualified with extensive specialized knowledge. A majority of them graduated from developed countries including UK, Australia, France, Belgium, and Taiwan.

- Many lecturers have got practical experiences in enterprises for many years. It is a great advantage for FE in enhancing the training quality towards current trend of learning by doing and project-based curriculum.

- Academic staff have often updated new teaching and assessment methods to be adapting to the new requirements of IMP such as LMS, video clips, electronic lectures, and applied software.

- Lecturers are well aware of the need for enhancing specialized knowledge and professional skills through long-term and short-term training programmes and courses.

Weaknesses

- At present, the number of Assoc. Prof. in FE is still limited.

- FE's academic staff still lack experiences in scientific research and international publication.

Plans for improvement

- FE is planning to recruit more academic staff who hold PhD degrees.

- FE encourages master lecturers to study PhD programmes overseas within the next two years.

- FE requires academic staff to attend international conferences to get more experiences in scientific research.

Criterion 7. Support staff quality

Strengths

- Support staff are carefully recruited and trained so that their competences are efficient. Their work maintains the connection to both other staff and students through fulfilling their job requirements.

- Support staff are also always willing to help students with both academic and administrative activities. Therefore, they achieve a high level of student and lecturer satisfaction.

Weakness

- Support staff need to improve their English proficiency to adapt to the University's development strategy.

Plans for improvement

- The University has organized many English and office administration training courses for support staff.

- The University is considering introducing an incentive scheme to encourage support staff to improve their professional competence. There will be, for example, awards for departments and staff who achieve a high level of students' satisfaction (based on surveys) and awards for staff who get high grades in English training courses.

Criterion 8. Student Quality and Support

Strengths

- A clear and well publicized admissions policy helps HCMUTE improve the input quality of students.

- The online and dashboard systems help FE students and departments manage the learning and teaching process effectively. The Advisory Team always readily assist students in their studies and life.

- In addition to the curriculum, HCMUTE and FE also focus on developing soft skills, organizing field trips, academic competitions, and social activities to develop the students.

Weakness

- Students' English proficiency is limited because most them come from rural areas. This prevents them from accessing foreign materials. In addition, poor English communication is a weakness when students apply for jobs.

Plans for improvement

- HCMUTE and FE clubs organize many extracurricular activities such as English speaking contests, English zones, etc. to create an English speaking environment for students.

- HCMUTE has also offered intensive English courses for students with poor English performance.

Criterion 9. Facilities and Infrastructure

Strengths

- HCMUTE's learning environment is spacious and safe.

- The University offers free Internet access to all students on campus.

- HCMUTE's library is constantly updated with abundant and diversified resources for lecturers and students' study and research.

Weaknesses

- Despite constant efforts to upgrade facilities, HCMUTE still cannot provide student accommodation for all students.

- Foreign language materials in the field of economics and management in the library are quite limited in number.

Plans for improvement

- HCMUTE will continue to develop its facilities in the future.

- HCMUTE arranges for its students to stay in Vietnam National University HCMC's dormitories.

- SSC recommends safe private rented accommodation to students.

- FE lecturers proactively propose buying more foreign books in accordance with their specialization.

Criterion 10: Quality Enhancement

Strengths

- IMP is designed and developed based on the ideas, suggestions, and feedbacks from stakeholders in order to meet the society's requirements.

- The curriculum is periodically revised to enhance the training quality.

- The increasing requirements of revised curriculum create more opportunities for students to promote their strengths and skills.

- Improvements in the teaching and learning of IMP are continuously implemented to ensure that students achieve ELOs.

- Questionnaires for surveys are annually amended to update new matters.

Weaknesses

- There aren't many research which are applied to enhance teaching and learning.

- The number of students' research is still limited.

Plans for improvement

- FE encourages academic staff to conduct more applied researches for the teaching and learning enhancement.

- FE gives more assistance and encouragement to students to undertake research and participate in professional competitions.

Criterion 11. Output

Strengths

- FE always concentrates on improving the study programmes to adapt to the labour market's needs, focussing especially on enhancing students' soft skills and English proficiency so that graduates do not take too much time to integrate into the new working environment.

- The employment rate of students 3 months after graduation is very high compared with that of other programmes in HCMUTE, with our graduates being highly rated by enterprises.

Weaknesses

- The majority of IMP students come from rural areas of Vietnam where English teaching and learning is not adequate, so their English proficiency is limited.

- The limitation of students' research ability is also an obstacle to higher education.

Plans for improvement

- FE and HCMUTE need to work in close cooperation with enterprises in training, study programme development and teaching coordination. This helps IM students in particular and HCMUTE students in general obtain a good social standing.

Checklist for AUN-QA assessment at programme level

1	Expected Learning Outcomes	1	2	3	4	5	6	7
1.1	The expected learning outcomes have been clearly formulated and aligned with the vision and mission of the university					x		
1.2	The expected learning outcomes cover both subject specific and generic (i.e transferable) learning outcomes					x		
1.3	The expected learning outcomes clearly reflect the requirements of the stakeholders					x		
	Overall opinion				5.0			
2	Programme Specification	1	2	3	4	5	6	7
2.1	The information in the programme specification is comprehensive and up-to-date					x		
2.2	The information in the course specification is comprehensive and up-to-date					x		
2.3	The programme and course specifications are communicated and made available to the stakeholders				x			
	Overall opinion				4.8			
3	Programme structure and content	1	2	3	4	5	6	7
3.1	The curriculum is designed based on constructive alignment with the expected learning outcomes					x		
3.2	The contribution made by each course to achieve the expected learning outcomes is clear					x		
3.3	The curriculum is logically structured, sequenced, integrated and up-to-date					x		
	Overall opinion				5.0			
4	Teaching and Learning Approach	1	2	3	4	5	6	7
4.1	The educational philosophy is well articulated and communicated to all stakeholders					x		
4.2	Teaching and learning activities are constructively aligned to the achievement of the expected learning outcomes					x		
4.3	Teaching and learning activities enhance life-long learning					x		
	Overall opinion				5.0			
5	Student Assessment	1	2	3	4	5	6	7
5.1	The Student assessment is constructively aligned to the achievement of the expected learning outcomes					x		
5.2	The student assessments including timelines, methods, regulations, weight distribution, rubrics and grading are explicit and communicated to students					x		
5.3	Methods including assessment rubrics and marking schemes are used to ensure validity, reliability and fairness of student assessment					x		
5.4	Feedback of student assessment is timely and helps to improve learning					x		

		1	2	3	4	5	6	7
5.5	Students have ready access to appeal procedure				x			
	Overall opinion				**4.9**			
6	**Academic Staff Quality**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
6.1	Academic staff planning (considering succession, promotion, re-deployment, termination, and retirement) is carried out to fulfil the needs for education, research and service					x		
6.2	Staff-to-student ratio and workload are measured and monitored to improve the quality of education, research and service					x		
6.3	Recruitment and selection criteria including ethics and academic freedom for appointment, deployment and promotion are determined and communicated					x		
6.4	Competences of academic staff are identified and evaluated					x		
6.5	Training and developmental needs of academic staff are identified and activities are implemented to fulfil them					x		
6.6	Performance management including rewards and recognition is implemented to motivate and support education, research and service					x		
6.7	The types and quantity of research activities by academic staff are established, monitored and benchmarked for improvement				x			
	Overall opinion				**4.9**			
7	**Support Staff Quality**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
7.1	Support staff planning (at the library, laboratory, IT facility and student services) is carried out to fulfil the needs for education, research and service					x		
7.2	Recruitment and selection criteria for appointment, deployment and promotion are determined and communicated					x		
7.3	Competences of support staff are identified and evaluated						x	
7.4	Training and developmental needs of support staff are identified and activities are implemented to fulfil them						x	
7.5	Performance management including rewards and recognition is implemented to motivate and support education, research and service					x		
	Overall opinion				**5.1**			
8	**Student quality and support**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
8.1	The student intake policy and admission criteria are defined, communicated, published, and up-to-date						x	
8.2	The methods and criteria for the selection of students are determined and evaluated					x		
8.3	There is an adequate monitoring system for student progress, academic performance, and workload						x	
8.4	Academic advice, co-curricular activities, student competition, and other student support services are available to improve learning and employability					x		

8.5	The physical, social and psychological environment is conducive for education and research as well as personal well-being						x	
	Overall opinion				**5.5**			
9	**Facilities and infrastructure**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
9.1	The teaching and learning facilities and equipment (lecture halls, classrooms, project rooms, etc.) are adequate and updated to support education and research					x		
9.2	The library and its resources are adequate and updated to support education and research					x		
9.3	The laboratories and equipment are adequate and updated to support education and research				x			
9.4	The IT facilities including e-learning infrastructure are adequate and updated to support education and research					x		
9.5	The standards for environment, health and safety; and access for people with special needs are defined and implemented						x	
	Overall opinion				**5.0**			
10	**Quality enhancement**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
10.1	Stakeholders' needs and feedback serve as input to curriculum design and development					x		
10.2	The curriculum design and development process is established and subjected to evaluation and enhancement					x		
10.3	The teaching and learning processes and student assessment are continuously reviewed and evaluated to ensure their relevance and alignment					x		
10.4	Research output is used to enhance teaching and learning				x			
10.5	Quality of support services and facilities (at the library, laboratory, IT facility and student services) is subjected to evaluation and enhancement					x		
10.6	The stakeholder's feedback mechanisms are systematic and subjected to evaluation and enhancement					x		
	Overall opinion				**4.9**			
11	**Output**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
11.1	The pass rates and dropout rates are established, monitored and benchmarked for improvement					x		
11.2	The average time to graduate is established, monitored and benchmarked for improvement					x		
11.3	Employability of graduates is established, monitored and benchmarked for improvement					x		
11.4	The types and quantity of research activities by students are established, monitored and benchmarked for improvement				x			
11.5	The satisfaction levels of stakeholders are established, monitored and benchmarked for improvement					x		
	Overall opinion				**4.9**			
	Overall verdict				**5.1**			

PART IV: APPENDICES

Appendix 1: Sample of Rubrics

HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY AND EDUCATION – FACULTY OF ECONOMICS

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RUBRICS for INTERNSHIP REPORT ASSESSMENT

MAJOR: …………………………….. ENROLMENT YEAR…..……ACADEMIC YEAR: 201… - 201…

Student′s name: …………………………………Student′s number: ……………Student′s class: …………………

Supervisor: ……………………………………………………………………………..

Criteria	Poor	Fair	Good	Excellent	Score
Attitude	**0 – 0.4**	**0.5 - 1.0**	**1.1 - 1.6**	**1.7 - 2.0**	
	Rarely contact supervisor to have the report assessed	Occasionally contact supervisor to have the report assessed	Often contact supervisor to have the report assessed	Usually contact supervisor to have the report assessed	
Format	**0 – 0.2**	**0.3 -0.5**	**0.6 – 0.8**	**0.9 – 1.0**	
	The layout complies with FE′s guidelines (structure of chapters, numbering, text′s font, size, line spacing…)	The layout complies with FE′s guidelines but there are formatting mistakes, e.g. not yet numbering figures and charts…	The layout complies with FE′s guidelines but there are some spelling and writing style mistakes.	The layout complies with FE′s guidelines (error-free spelling in the text, clear graphics and figures, clear writing style, no vague sentence, satisfying the requirement of minimum page limit…)	
Introduction	**0 – 0.2**	**0.3 -0.5**	**0.6 – 0.8**	**0.9 – 1.0**	
	No relation to the report′s main content	Include clear research purposes but not yet present some points including: research goals.	Provide sufficient details as being required but at times in an unconvincing manner.	Content is completely described as being required, analysis is convincing.	

	0 – 1.5	1.6 -3.0	3.1 – 4.5	4.6 – 5.5	
	scope and methods.				
Main content	General overview of the organization (location, history of establishment and development). Not describe the current state of the research topic. Evaluation is simplistic and off-topic. Recommendation does not connect to the topic. There is no connection among topics.	Not fully introduction to the organization as being required. Not fully describe the current state of the research topic. The information is out-of-date. There is no connection between the evaluation of the organization′s strengths and weaknesses and the solution part.	The topic is fully covered with no factual errors, but some content is not specific. Strengths and weaknesses of the research topic is stated, causes are explained and solved but not yet convincing	Describe the current state of research topic with no factual errors, sufficiently, logically and at an appropriate level of detail. Strengths and weaknesses of the research topic is stated, causes are explained. Compare practice with theories learnt in the program, either point out differences or come up with some recommendation for improving the situation. Analysis and arguments are logic and match to the current situation and research purposes.	
	0	**0.1 – 0.2**	**0.3 - 0.4**	**0.5**	
Conclusion	The conclusion is not relevant to the main content	The conclusion does not fully summarise the research topic	In conclusion, report′s main points are reinforced but failure to suggest direction for further research	Report′s main points are reinforced; presenting issues that are researched, studied in the internship program and suggesting direction for further research	
Total score:					

Day…….Month…….Year 201….

Assessor

RUBRICS for GRADUATION THESIS ASSESSMENT by SUPERVISOR

Student′s name: ....Student′s number: ....

Thesis′ title: ....

Criteria	Poor	Fair	Good	Excellent	Score
Content	**0-3.0**	**3.1-4.0**	**4.1-5.0**	**5.1-6.0**	
	There is no connection among chapters. Research main points, purposes and content do not match to the thesis′ title. Analyses are too general and lack details. All analyses and interpretation are not scientifically grounded. Many ideas are not coherent and inconsistent.	Lack of connection among chapters. Research main points, purposes and content do not closely match to the thesis′ title. Analyses are too general and lack details. Many analyses and interpretation are not scientifically grounded.	There is connection among chapters. Research main points, purposes and content match to the thesis′ title, but analyses are simplistic and lack details, lack of focus in support of the topic. Some analyses and interpretation are not scientifically grounded.	There is connection among chapters. Research main points, purposes and content match to the thesis′ title. Analyses are detailed and demonstrate a focus in support of the topic. Analyses and interpretation are scientifically grounded.	
Citation and Reference	**0-0.4**	**0.5-0.6**	**0.7-0.8**	**0.9-1.0**	
	Few references are used. Include non-referred theories (concepts) in the thesis. Many figures are not named, numbered and cited.	A moderate number of references are used. Include non-referred theories (concepts) in the thesis. Many figures are not named, numbered and cited.	A high number of references are used. Include some non-referred theories (concepts) in the thesis. Some figures are not named, numbered and cited appropriately.	Varied uses of sources. Sufficient references to theories (concepts) in the thesis. Figures are named, numbered and cited adequately (excluding figures that are self-analyzed and self-processed by the author).	

	0-0.9	1.0-1.3	1.4-1.7	1.8-2.0	
Sentences and Vocabulary	Development of ideas is unclear, inconsistent and disorderly organized. Numerous inexactness in wording (not appropriate in the context). Sentences lack of coherence, there are many spelling mistakes.	Development of ideas is inadequately clear and disorderly organized. Much inexactness in wording (not appropriate in the context). Sentences lack of coherence, there are many spelling mistakes.	Development of ideas is inadequately clear. Some inexactness in wording (not appropriate in the context). Sentences lack of coherence, there are some spelling mistakes.	Development of ideas is clear and flows in a logical progression. Uses of words are appropriate in the given contexts. Sentences are coherence, there are no spelling mistakes.	
	0-0.4	**0.5-0.6**	**0.7-0.8**	**0.9-1.0**	
Attitude	Rarely contact supervisor to have the report assessed	Occasionally contact supervisor to have the report assessed	Often contact supervisor to have the report assessed	Usually contact supervisor to have the report assessed	
Total score:					

Conclusion: ☐ Allow the student to defense in front of committee ☐ Allow the student to defense in front of committee

Day ….month…..year ……

Supervisor

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RUBRIC for GRADUATION THESIS ASSESSMENT by COMMITTEE EXAMINERS

Student′s name: ....Student′s number: ....

Criteria	Poor	Fair	Good	Excellent	Score
Slides	**0-0.4**	**0.5-0.6**	**0.7-0.8**	**0.9-1.0**	
	The visual aids do not sufficiently convey thesis content, are not well designed and not engaging	The visual aids do not effectively convey thesis content, are relatively well designed but not fully engaging	The visual aids effectively convey thesis content, are well designed but not fully engaging	The visual aids effectively convey thesis content, are well designed and engaging	
Presentation	**0-0.5**	**0.6-0.9**	**1.0-1.2**	**1.3-1.5**	
	Voice is too soft and unclear; presenting illogically, the student appears unconfident	Voice is loud and clear; but presenting lacks of logics; the student appears unconfident	Voice is loud and clear; presenting logically; the student appears confident.	Voice is loud and clear; presenting in logical and appealing manner; the student appears confident.	
Length of presentation	**0**	**0.1**	**0.3**	**0.5**	
	More than 4 minutes above the allotted time	4 minutes above the allotted time.	2 minutes above the allotted time	Within 10 minutes of allotted time	
Content	**0.6-1.5**	**1.6-2.5**	**2.6-3.5**	**3.6-4.5**	
	Chapters′ content do not connect to each others.	Chapters′ content lack of connection. Analysis is	Content is connected among chapters, but analysis is	Content is connected among chapters. Analysis is concrete	

	Analysis is inappropriate or off-topic, not specific, do not address the research topic. There are many analysis and ideas which are not well-supported.	inappropriate or off-topic, not specific, do not address the research topic. There are many analysis and ideas which are not well-supported	simplistic, not specific and do not fully address the research topic. There are some analysis and ideas which are not well supported.	and focus on the research topic. There are well supported analysis and ideas.	
Answering questions	**0-1.0**	**1.1-1.5**	**1.6-2.0**	**2.1-2.5**	
	Answer incorrectly and inaccurately, or inability to answer questions	Answer to questions partly correctly, explanation is not really reasonable	Answer to questions mostly correctly, explanation is relatively reasonable and accurate	Answer to questions correctly with reasonable and accurate explanation	
Total score:					

Committee Examiner

Appendix 2a: Correlation matrix between ELOs and courses

No	Courses	Expected Learning Outcomes																
		1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
General Knowledge																		
1	Introduction To IM		M	M		L			M	H	M					M	M	
2	Ho Chi Minh's Ideology	H																
3	VCP's Revolution Guidance	H																
4	Fundamentals of Marxism - Leninism	H																
5	General Law	H																
6	English 1										L	H						
7	English 2										L	H						
8	English 3										L	H						
9	Mathematics C1 (Algebra)	H	M	L	M	M				L	L	L						
10	Mathematics C2 (Analytics)	H	M	L	M			M	L	L	L							
11	General Physics A1	H			H					M								
12	General Physics A2	H			H					M								
13	Research Methods			M	M	M				M								
14	Applied Probabilities and Statistics	H	M			M												
15	Econometrics	H			L	M					M							
16	Optimization	H	M		L													
17	MS Office		L	L												M	M	M
Fundamental Knowledge		1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
1	Business English	L	M		M					H	M	H		M				

		1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
2	General Economics	L	M		H					M								
3	Principles of Accounting		M		H				M				H					
4	Business Law	M			H	M	M	H	H		M			L	L			
5	Fundamental Management		H		L											L		
6	Business Statistics	H			L													
7	Technical drawing		M	L													M	M
Specialized knowledge		1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
1	Marketing Management			H	H	M				H	H	H			H	H		L
2	Managerial Accounting		M		M	M								H				
3	Foreign Trade Management		M	M			M	L		M	L	M			M	H		
4	Production system			M	H					M		L				H		
5	Production Management			M	H					M		L				H		H
6	Technology Management		L	L	M		M		M	L	M	L	H	H				H
7	Marketing Research		M			H			M	H								
8	Applying SPSS into research		L			H			M	L								
9	Human Resources Management			M	M					M		M	L	H				
10	Quality Management		L	L	L		M		L	L	M	L					M	H
11	Maintenance Management		L		L	M					M	L			H	H		
12	Mag. Information System		M	L		M	H			M	M	M			H	M		
13	Strategic Management		H							M					L			
14	Project Management		M												H	H	H	H
15	Financial Management		H	M	M	L				L		M					M	L
16	Electronic Commerce (EC)		M	L	M	M	H	L			L	M	M	M	H	M	M	L

		1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
17	International Business		M		M	M	M				M	M						L
Internship and Thesis/ Final Exam																		
1	Internship		M	H	L		L	L	H		L	M		H	M	M	L	L
2	Thesis		M	H	M	M		M	M		L	M	L		H	H	M	M
Final Exam		1.1	1.2	1.3	2.1	2.2	2.3	2.4	2.5	3.1	3.2	3.3	4.1	4.2	4.3	4.4	4.5	4.6
2a	Business Planning			H		M	M			M	H		M		M			
2b	Supply Chain Management			M	M					M		L				H		M
2c	Enterprise Resource Planning		L	L	M	M	L				M	M	H	H	H	H	M	M

MINISTRY OF EDUCATION & TRAINING

HCMC UNIVERSITY OF TECHNOLOGY AND EDUCATION

Faculty of Economics

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UNDERGRADUATE PROGRAM

1. Program Title: Industrial Management

2. Awarding Institution: HCMC University of Technology and Education

3. Programme Code: 52510601

4. Training Time: 4 years

5. Type of Study: Campus based

6. Admissions Requirements

High school students have to attend National Entrance Exam organized by MoET. If they have total score of Mathematics, Physics, and Chemistry (group A) or Mathematics, Physics, and English (group A1), or Mathematics, Literature, English (group D1) higher than the cut-off score set by the HCMUTE, they will become students of IMP. Or students who graduated from specialized high schools, have an average score of five consecutive terms of high school larger than7.5 and are in top 10% of the HCMUTE annual admissions quota.

7. Programme Objectives and ELOs

Programme objectives	_Expected learning outcomes_
PO1: Apply knowledge of foundation sciences, economics and management.	1.1 Apply knowledge of basic science in industrial management
	1.2 Illustrate general knowledge of management in production, business, trade and service.
	1.3 Implement knowledge of industrial management such as production management, quality management, human resources management, and marketing management
PO2: Have an ability to self-study, to think systematically, and to solve problems in production system.	2.1 Analyze, evaluate and solve problems in production and business
	2.2 Do a research in business operations
	2.3 Conduct systematic thinking

	2.4 Show professional working attitude, international integration and lifelong learning capacity
	2.5 Be aware of professional ethics
PO3: Lead and work in a team, communicate effectively.	3.1 Lead and work in a team
	3.2 Communicate effectively in business environment
	3.3 Communicate in English
PO4: Conceive ideas, design, implement, and operate production system in enterprises.	4.1 Understand macro factors' influence on business operations
	4.2 Adapt to different working environments.
	4.3 Conceive ideas of production system improvement
	4.4 Set up requirement, make plans
	4.5 Implement a plan or a project
	4.6 Operate and manage production systems

8. Programme Structure

Name	Credits		
	Total	Compulsory	Selective
General Knowledge	**54**	**50**	**4**
Political education	12	12	
Social Sciences	9	5	4
English	9	9	
Information Technology	3	3	
Mathematics and Natural Science	21	21	
Fundamental and Specialized Knowledge	**96**	**84**	**12**
Fundamental Knowledge	26	20	6
Specialized	56	50	6
Internship	4	4	
Thesis	10	10	
Total	**150**	**134**	**16**

9. Programme Details

9.1 General Knowledge

9.1.1 Political education and Social Sciences

No	Code	Course Title	Credits	Note
1	LLCT150105	Fundamentals of Marxism - Leninism	5	
2	LLCT120314	Ho Chi Minh's Ideology	2	
3	LLCT230214	VCP's Revolution Guidance	3	
4	INMA 130106	Introduction Industrial Management	3	(2+1)
5	GELA220405	General Law	2	
6	SCRE220306	Research Methods	2	
Total			**17**	

9.1.2 English

No	Code	Course Title	Credits	Note
1	ENGL130137	English 1	3	
2	ENGL230237	English 2	3	
3	ENGL330337	English 3	3	
Total			**9**	

9.1.3 Mathematics – Information Technology – Natural Sciences

No	Code	Course Title	Credits	Note
1	MATH130801	Mathematics C1 (Algebra)	3	
2	MATH130901	Mathematics C2 (Analytics)	3	
3	MIOF130207	MS Office	3	(2+1)
4	PHYS120102	General Physics A1	3	
5	PHYS120202	General Physics A2	3	
6	MATH130401	Applied Probabilities and Statistics	3	
7	EMET230606	Econometrics	3	
8	MAOP230706	Optimization	3	
Total			**24**	

9.2 Fundamental knowledge

No	Code	Course Title	Credits	Note
1	BENG330706	Business English	3	
2	FECO240206	General Economics	4	
3	PRAC230407	Principles of Accounting	3	
4	BLAW230906	Business Law	2	
5	FUMA220806	Fundamental Management	3	
6	STAT231006	Business Statistics	3	
7	EDDG220120	Technical drawing	2	
Total			**20**	

9.3 Specialized Knowledge

No	Code	Course Title	Credits	Note
1	MAMA340906	Marketing Management	4	
2	MAAC331307	Managerial Accounting	3	
3	FTMA432406	Foreign Trade Management	3	
4	PRMA330806	Production system	3	
5	PRMA331506	Production Management	3	
6	TEMA331406	Technology Management	3	
7	MARE330206	Marketing Research	3	
8	SPAP412206	Applying SPSS into research	1	
9	HRMA331206	Human Resources Management	3	
10	QMAN331606	Quality Management	3	
11	MAIM330406	Maintenance Management	3	
12	MAIS440306	Management Information System (MIS)	4	
13	STMA430406	Strategic Management	3	
14	PROM430506	Project Management	3	
15	FIMA420807	Finance Management	3	
16	ECOM431006	Electronic Commerce (EC)	3	
17	INTB320606	International Business	2	
Total			**49**	

9.4 Internship and Thesis

No	Code	Course Title	Credits	Note
1	INTE441106	Internship	4	
2	IMGR4101206	Final Thesis or Final Exam	10	
		Total	**14**	

9.5 Selective Courses

9.5.1 General Knowledge: (Choose 2 courses: 04 credits)

No	Code	Course Title	Credits	Note
1	PLSK320605	Planning Skills	2	
2	PRSK320705	Presentation Skill	2	
3	INLO220405	Introduction to Logics	2	
4	IVNC320905	Vietnamese Culture	2	
5	INSO321005	Introduction to Sociology	2	

9.5.2. Specialized Knowledge in Engineering (Group A)

(Choose 2 Courses: 06 credits)

No	Code	Course Title	Credits	Note
1	CADM230320	Basic AutoCAD	3	(2+1)
2	AMAP432225	Automation of Production Process	3	
3	MASI230226	Material Study	3	(2+1)
4	ELEN232044	Electrical Engineering	3	
5	GMEN134025	General Mechanics	3	
6	DITE334029	Digital	3	

9.5.3. Specialized Knowledge in Management (Group B)

(Choose 3 Courses: 06 credits)

No	Unit Code	Unit Title	Credits	Note
1	ORBE320306	Organizational Behavior	2	
2	PRAN321106	Project Analysis and Evaluation	2	
3	BCOM320106	Business Communication	2	
4	SEMA320907	Security Market	2	
5	CUSM321006	Customer Relationship Management	2	
6	MARI420107	Financial Risk Management	2	

7	ADBE430206	Advanced Business English	2	
8	PSBU221106	Business Psychology	2	
9	BCUL320506	Corporate Culture	2	

10. TEACHING PLAN

Semester 1:

No	Course Code	Course Title	Credits	Prerequisite Code
1	MATH130801	Mathematics C1 (Algebra)	3	
2	GELA220405	General Law	2	
3	PHYS120102	General Physics A1	3	
4	LLCT150105	Fundamentals of Marxism – Leninism	5	
5	MIOF130207	MS Office	3 (2+1)	
6	INMA130106	Introduction To Industrial Management	3 (2+1)	
		Total	**19**	

Semester 2:

No	Course Code	Course Title	Credits	Prerequisite Code
1	MATH120901	Mathematics C2 (Analytics)	3	MATH130801
2	ENGL130137	English 1	3	
3	FECO240206	General Economics	4	
4	LLCT120314	Ho Chi Minh's Ideology	2	
5	PHYS120202	General Physics A2	3	PHYS120102
6	MATH130401	Applied Probabilities and Statistics	3	
7		Choose 1 selective course in general knowledge group	2	
		Total	**20**	

Semester 3:

No	Course Code	Course Title	Credits	Prerequisite Code
1	LLCT230214	VCP's Revolution Guidance	3	
2	FUMA230806	Fundamental Management	3	
3	ENGL230237	English 2	3	ENGL130137
4	MAOP230706	Optimization	3	MATH130901
5	STAT231006	Business Statistics	3	MATH130401
6	EDDG220120	Technical drawing	2	
7		Choose 1 selective course in general knowledge	2	

		group		
		Total	**19**	

Semester 4:

No	Course Code	Course Title	Credits	Prerequisite Code
1	PRAC230407	Principles of Accounting	3	
2	EMET230606	Econometrics	3	STAT231006
3	TEMA321406	Technology Management	3	FUMA230806
4	SCRE220306	Research Methods	2	
5	ENGL330337	English 3	3	ENGL230237
6	BLAW220906	Business Law	2	GELA220405
7		Choose 1 selective course in specialized knowledge group A	3	
		Total	**19**	

Semester 5:

No	Course Code	Course Title	Credits	Prerequisite Code
1	BENG330706	Business English	3	
2	MAMA340906	Marketing Management	4	FUMA230806
3	MAAC331307	Managerial Accounting	3	PRAC230407
4	PRMA330806	Production system	3	FUMA230806
5	QMAN331606	Quality Management	3	FUMA230806
6		Choose 1 selective course in specialized knowledge group A	3	
		Total	**19**	

Semester 6:

No	Course Code	Course Title	Credits	Prerequisite Code
1	INTB330606	International Business	2	
2	MAIM320406	Maintenance Management	3	FUMA230806
3	MAIS430306	Management Information System (MIS)	4	MIOF130207
4	PRMA331506	Production Management	3	PRMA330806
5	MARE320206	Marketing Research	3	SCRE220306
6	SPAP412206	Applying SPSS into research	1	
7		Choose 2 selective courses in specialized knowledge group B	4	
		Total	**20**	

Semester 7:

No	Course Code	Course Title	Credits	Prerequisite Code
1	STMA430406	Strategic Management	3	FUMA230806
2	PROM430506	Project Management	3	FUMA230806
3	ECOM431006	Electronic Commerce (EC)	3	MIOF130207
4	FIMA430807	Finance Management	3	MATH120901
5	FTMA432406	Foreign trade Management	3	
6	HRMA331206	Human Resources Management	3	FUMA230806
7		Choose 1 selective course in specialized knowledge group B	2	
Total			**20**	

Semester 8:

No	Course Code	Course Title	Credits	Prerequisite Code
1	INTE441106	Final Internship	4	Senior students
2	**Final Thesis or Final Exam**			
3	IMGR401206	Final Thesis	10	Senior students
4	**Final Exam**			
5	SCMA440706	Supply Chain Management	4	PRMA330806
6	BPLA430606	Business Planning	3	FIMA430807 MAMA340906
7	ERPS431208	Enterprise Resource Planning	3	PRMA331506
Total			**14**	

11. Curriculum Map

CURRICULUM MAP
Industrial Management Programme 150 credits

1st Year

SE1: Math C1 (3) | MS Office (3) | Physics A1 (3) | Fundamentals of Marxism – Leninism (5) | General Law (2) | Introduction to IM (3)

SE2: Math C2 (3) | English 1 (3) | Physics A2 (3) | HoChiMinh's Ideology (2) | General Economics (4) | Applied Statistics (3) | Selective in General Knowledge (2)

2nd Year

SE3: Optimization (3) | English 2 (3) | Fundamental Management (3) | VCP's Revolution Guidance (3) | Technical drawing (2) | Business Statistics (3) | Selective in General Knowledge (2)

SE4: Principles of Accounting (3) | English 3 (3) | Technology Management (3) | Research Methods (2) | Business Law (2) | Econometrics (3) | Selective in Group A (3)

3rd Year

SE5: Production system (3) | Business English (3) | Managerial Accounting (3) | Marketing Management (4) | Selective in Group A (3) | Quality Management (3)

SE6: Production Management (3) | Maintenance Management (3) | MIS (4) | International Business (2) | SPSS (1) | Marketing Research (3) | Selectives in Group B (4)

4th Year

SE7: Finance Management (3) | Project Management (3) | Strategic Management (3) | Electronic Commerce (3) | Foreign trade Management (3) | HR Management (3) | Selective in Group B (2)

SE8: Internship (4) | **Final Thesis** OR Final Exam (SC Management, Business Planning, ERP) (10)

Note:
- General Courses
- Fundamental Courses
- Specialized Courses
- Selective Courses
- Prerequisite

12. Job Opportunities

After graduation, students of IMP can work in many fields especially in production enterprises. Specific career opportunities are as follows:

+ Production management includes production planning, purchasing and inventory management, and staff management.

+ Supply chain management involves negotiating contracts, establishing long-term relationships with suppliers, maintaining the accuracy of the purchasing system, invoices, and returned goods.

+ Process improvement consulting includes designing and implementing lean manufacturing plans and reducing production time in both manufacturing and service sectors.

+ Quality management includes a detailed analysis of databases and spreadsheets, process validation to identify areas for improvement, and management of changes.

+ Human resource management includes personnel planning, training needs assessment and training planning, salary and bonus plans, incentive plans and labour relations.

+ Business management includes marketing research, marketing management, strategic planning, business planning.

Teaching plan: Target Course Outline

Course: Quality Management

All of the topics taught during a single semester

Topic	Teaching-learning Method	Materials	Comments
Quality in the global competitive trend and the quality management situation in Vietnam	Lecture, question and answer	Animated PPT; questions.	
The concept of quality	Discussion , teamwork, lecture, watch video	Image of some products; Paper A2 (or dry erase board); Question Slides, video; PPT; documents.	
The concept of quality management systems.	Watch video, lecture	video; PPT	
Classify and calculate cost of quality	Lecture, teamwork, case study	Paper A2 (or dry erase board); PPT; documents.	Print and copy case study documents for all students.
Some indexes and methods of quality testing.	Lecture, do exercises	PPT; documents.	
Statistical Process Control in Quality	Lecture, practice on software, Case study.	PPT; documents; Minitab software.	Teaching in Computer Lab. Tutor have sent case study to all students.
Method 5S in quality management	Play game, lecture, watch video	Video, PPT, documents.	Instructor prepare material for game.
Method Six Sigma in quality management	Case study, practice on software	Documents; Minitab software.	Teaching in Computer Lab. Tutor have sent case study to all students.

Quality Management System such as: ISO 9001; ISO 14001; ISO 22000	Team work, presentation	Paper A2 (or dry erase board); rubrics.	

Teaching plan of a topic

Topic: The concept of Quality	Methods	Materials	Style (Kolb)
Contents	Discussion , teamwork	Image of some products; Paper A2 (or dry erase board); Question Slides	Diverger/ Accommodator
Definition of Quality: from students' ideas	Lecture- PPT	Animated PPT; documents	Assimilator
Definition of Quality: from expert's ideas	Watch video, discussion, teamwork	Video, Paper A2 (or dry erase board); Question Slides	Diverger
Process of quality formation: find out ideas from students	Lecture- PPT	Animated PPT, documents	Assimilator
Process of quality formation: conclusion	Discussion, teamwork	Paper A2 (or dry erase board); Question Slides	Diverger
Factors affect quality: find out ideas from students	Lecture- PPT	Animated PPT, documents	Assimilator
Factors affect quality: conclusion		Multiple Choice Quiz	Converger
Quiz about the concept of Quality			

Teaching plan of a topic

Topic: The concept of Quality

Contents	Methods	Materials	Style (Kolb)
Definition of Quality: from students' ideas	Discussion , teamwork	Image of some products; Paper A2 (or dry erase board); Question Slides	Diverger/ Accommodator
Definition of Quality: from expert's ideas	Lecture- PPT	Animated PPT; documents	Assimilator
Process of quality formation: find out ideas from students	Watch video, discussion, teamwork	Video, Paper A2 (or dry erase board); Question Slides	Diverger
Process of quality formation: conclusion	Lecture- PPT	Animated PPT, documents	Assimilator
Factors affect quality: find out ideas from students	Discussion, teamwork	Paper A2 (or dry erase board); Question Slides	Diverger
Factors affect quality: conclusion	Lecture- PPT	Animated PPT, documents	Assimilator
Quiz about the concept of Quality		Multiple Choice Quiz	Converger

Course Syllabus

1. **Course Title:** Introduction to Industrial Management
2. **Course Code:** INMA130106
3. **Number of Credits:** 4 units (4/0/8) (4 lecture periods, 0 laboratory period, 8 self-study period per week). Time allocation: 15 weeks
4. **Instructors**

Main lecturers: Dr. Tran Dang Thinh

List of other lecturers: Dr. Nguyen Thi Thanh Van; Dr. Vong Thinh Nam;

Dr. Nguyen Khac Hieu; MSc. Le Truong Diem Trang

5. **Course Requirements**

Prerequisite courses: None

Previous courses: None

6. **Course Description:**

This course aims to introduce students Expected Learning Outcomes (ELOs), the curriculum of Industrial Management, and employment of students after graduation. The course also provides students with learning methods, presentation skills, and teamwork skills so that they can study better specialized courses. This course also outlines the specialized knowledge taught in industry management program which helps the learners have specific directions for their future career and research.

7. **Course Goals:**

Goals	Goal Description	Programme ELOs
G1	Present ELOs and basic content of Industrial Management Program.	1.2, 1.3
G2	Self-search materials for study and understand basic content of professional ethics.	2.2, 2.5
G3	Work in team and communicate effectively	3.1, 3.2
G4	Plan for study and have ideas for improving production and	4.3, 4.4

		business activities.	

8. Course Outcomes:

CLOs		CLO Description	Programme ELOs
G1	**G1.1**	Students can present Expected Learning Outcomes of Industrial Management Programme.	1.2
	G1.2	Students can present basic content of Industrial Management Programme.	1.3
G2	**G2.1**	Ability to self-search materials, self-study and present basic content of Industrial Management Programme.	2.2
	G2.2	Students can describe the basic ethical content of people working in the field of industrial management.	2.5
G3	**G3.1**	Ability to work in the team to solve issues related to industrial management and of Industrial Management Programme.	3.1
	G3.2	Ability to have communication skills to discuss issues related to industrial management and of Industrial Management Programme	3.2
G4	**G4.1**	Students can form ideas for improving production and business activities.	4.3
	G4.2	Students can make plan for self-studying	4.4

9. Required Resources:

John Vu (2015). Departure - Advises for Vietnamese students, General Publishing House of Ho Chi Minh City.

10. Assessment:

- Grading scale: **10**

- Examination plan:

Types of Exams	Content/ Topics	Timeline	Assessment method	CLOs	Rate(%)
Short Test					
KT#1	Some familiarization activities	Week 1	Mini test	G3.2	
KT#2	Introduction to Industrial Management	Week 2	Quiz	G1.1	
KT#3,4	Introduction to Industrial Management Program and ELOs	Week 3,4	Quiz	G1.2	

KT#	Content	Week	Type	CLO	Score
KT#5,6	Learning Method for undergraduate students	Week 5,6	Mini test	G2.2	
KT#7,8	Problem solving skills	Week 7,8	Mini test	G2.1	
KT#9,10	Team working skills	Week 9,10	Mini test	G3.1	
KT#11,12	Time management skills	Week 11,12	Quiz	G3.1	
KT#13,14	Professional ethics	Week 13,14	Mini test	G2.5	
KT#15	English comunication skills	Week 15	Mini test	G3.3	
Final Exam					**100**
Students are divided into groups of 3 to 5 students to prepare presentations and report with the following contents: 1. Choose a product that you are interested in 2. Describe the product and production process 3. Analyze the market and competition 4. Offer solutions for problems (if you can find)				G2.1 G3.1 G3.2	

11. Course Outline:

Week	Content	CLOs
1	***Chapter 1: Introduction***	
	A/ Major content and teaching methodology *(3)* **Theoretical content:** 1.1 History of HCMUTE 1.2 History of FE 1.3 Employment after graduation **Main teaching methodology***:* + Presentation + Discussion	G1.2
	B/ Content for self-study at home: *(6)* Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City. Visit website: WWW.hcmute.edu.vn	
2-3	***Chapter 2: Industrial Management Program***	

	A/ **Major content and teaching methodology** *(3)*		G1.2
	Theoretical content:		
	2.1 Introduction to ELOs		
	2.2 Introduction to Industrial Management Program		
	2.3 Brief introduction to specialized courses		
	Main teaching methodology*:*		
	+ Presentation		
	+ Group discussion		
	B/ **Content for self-study at home:** *(6)*		
	Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.		
	Visit website: WWW.fe.hcmute.edu.vn		
4	***Chapter 3: Learning Methods for Undergraduate students***		
	A/ **Major content and teaching methodology** *(3)*		G1.2
	Theoretical content:		
	3.1 Improve yourself		
	3.2 Remember important information		
	3.3 Make an effective study plan		
	Main teaching methodology*:*		
	+ Presentation		
	+ Discussion		
	B/ **Content for self-study at home:** *(6)*		
	Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.		
5	***Chapter 4: Information seeking skills***		
	A/ **Major content and teaching methodology** *(3)*		G1.2
	Theoretical content:		
	4.1 What is information		
	4.2 The need of information for study and research		

	4.3 Type of information	
	4.4 Source of information	
	4.5 Reliabity of information	
	4.6 Information seeking skills	
	Main teaching methodology*:*	
	+ Presentation	
	+ Practice on PC	
	B/ **Content for self-study at home:** *(6)*	
	Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.	
6	*Chapter 5: Communication Skills*	
	A/ **Major content and teaching methodology** *(3)*	
	Theoretical content:	
	5.1 Introduction to communication	
	5.1.1 What is communication	
	5.1.2 Means of communication	
	5.1.3 Types of communication	
	5.2 Five methods for successful communication	
	5.2.1 Beautiful words	
	5.2.2 Sincere	
	5.2.3 Listening skills	
	5.2.4 Ask questions	
	5.2.5 Presentation skills	
	Main teaching methodology*:*	
	+ Presentation	
	+ Discussion	
	B/ **Content for self-study at home:** *(6)*	
	Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.	
7-8	*Chapter 6: English Communication Skills*	

	A/ **Major content and teaching methodology** *(3)*	G4.4
	Theoretical content:	
	6.1 The roles of English in society	
	6.2 The roles of English in working environment	
	6.3 English in university environment	
	6.4 How to communicate in English well?	
	6.5 Improve English communication skills	
	6.6 English communication practice	
	Main teaching methodology*:*	
	+ Presentation	
	+ Discussion	
	B/ **Content for self-study at home:** *(6)*	
	Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.	
	Chapter 7: Teamwork skills	
	A/ **Major content and teaching methodology** *(3)*	G4.4
	Theoretical content:	
	7.1 Introduction to team working	
	7.2 Forming a team	
9-10	7.3 Organizing a team	
	7.4 Methods of team working	
	7.5 Information in teamwork	
	7.6 Working in team	
	7.7 Solving conflicts in team	
	7.8 Team assessment	
	7.9 Training and develop team	
	Main teaching methodology*:*	
	+ Presentation	
	+ Team work	

	B/ Content for self-study at home: *(6)* Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.	
11-12	***Chapter 8: Time management skills***	
	A/ Major content and teaching methodology *(3)* **Theoretical content:** 8.1 Introduction to time management 8.2 Process of time management 8.3 Causes to waste time 8.4 Methods of time management **Main teaching methodology***:* + Presentation + Discussion	
	B/ Content for self-study at home: *(6)* Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.	
13-14	***Chapter 9: Professional Ethics***	
	A/ Major content and teaching methodology *(3)* **Theoretical content:** 9.1 Concepts of Professional ethics 9.2 The roles of Professional ethics in business 9.3 Building professional ethics in enterprises 9.4 Applying professional ethics in enterprises **Main teaching methodology***:* + Presentation + Discussion	G4.4
	B/ Content for self-study at home: *(6)* Read the book: John Vu (2015). Departure-Advises for Vietnamese students. General Publishing House of Ho Chi Minh City.	

15	*Review and answer student questions about the teching content*	

12. **Course Policy:**
  – Group project found to be the same will be banned to take the final exams.
  – Students who cheat in mid-term or final exams will be deducted 100% of the points.
  – Attend at least 80% of teaching hours
  – Student should do all homework assigned

13. **First Date of Approval:** August 1st, 2012

14. **Approved by:**

Dean   **Head of the Department**   **Instructor**

15. **Date and Up-to-date content**

1st time: Date: December 05th, 2015 Content: Add content of learning methods for undergraduate students	Instructor: Head of the Department:
2nd time: Date: January 27th, 2018 Content: Revise the course summary and course objectives. Adjust the assessment (section 11)	Instructor: Head of the Department:

Course Syllabus

1. **Course Title: Quality Management**

2. **Course code: QMAN 331606**

3. **Number of Credits: 3 units** (3 lecture periods, 0 laboratory period, 6 self-study period per week)

Time allocation: 15 weeks (one semester credit is equivalent to one 50-minute lecture period)

4. **Instructors:**

   1/Main lecturer: MBA. Nguyen Thi Anh Van

   2/List of other lecturers: ME. Nguyen Thi Mai Tram

5. **Courses Requirements:**

Prerequisite courses: Business Statistics

Previous courses: Fundamental Management

6. **Course Description**

This course provides a basic view of quality and quality management, including the introduction of some indexes and methods of organization quality testing, applying methods, tools to quality management. The module gives ways of building and application QMS (quality management system)

7. **Course Goals**

Goals	*Goal description*	*Programme ELOs*
G1	The basic knowledge: quality, quality management, quality management systems.	1.2, 1.3
G2	The students will have the ability to analyse, evaluate and solve quality problems.	2.1, 2.3, 2.5
G3	Team work, presentation skills and can reading English quality documents.	3.1,3.2, 3.3
G4	Using the methods and tools to build and apply the quality management system for organizations.	4.5, 4.6

8. Course Outcomes

CLOs		CLO Description	Programme ELOs
G1	**G1.1**	Analyze the position of quality in the global competitive trend and the quality management situation in Vietnam.	1.2, 1.3
	G1.2	Describe the basic of quality and quality management systems.	1.2, 1.3
G2	**G2.1**	Use some indexes and methods of quality testing.	2.1
	G2.2	The ability to analyze quality costs	2.1, 2.3
	G2.3	The ability to find, research and present the English or Vietnamese contents.	2.3, 2.5
G3	**G3.1**	The team work skill to work and handle the problems of quality management.	3.1, 3.2
	G3.2	Understand English terms used for quality management	3.3
G4	**G4.1**	Using the methods and tools quality management system	4.5, 4.6
	G4.2	Presented how to develop and apply standard quality management system (ISO 9001, ISO 14001, GMP, ISO 22000 ...)	4.5, 4.6

9. Required Resources

✓ **Textbook:**

- In-class lectures

- Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010.

- **Workbook:** Tạ Thi Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Practice in Quality Management in Organizations* – Statistical Publishing House, 2010.

✓ **Supplemental book/material**

- Nguyễn Kim Định – *Quality Management* – Publisher of National University Ho Chi Minh City.

- Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City.

- Frank M. Gryna, McGraw-Hill - *Quality planning and analysis : from product development through use,* 4th ed., 2001

- James R. Evans and William M. Lindsay - *Total Quality Management, 9th ed.*, - Cengage Learning, 2016

- David L. Geotsch, Stanley Davis - *Quality management for organizational excellence: Introduction to total quality - 7th ed.* - Boston: Pearson Education, 2013.

- Kishore K. Pochampally & Surendra M. Gupta- *Six Sigma Case Studies with Minitab-1st ed.*-Taylor & Francis Group- 2014.

10. Assessment

- Grade: **10 points**

- Process score: 50%

- Final exam scores: 50%

- Test schedule

Form	Content	Timeline	Method	Outcome	Rate (%)
Bonus grades					**15**
BT#1	Review the basic concepts of quality	1st week	Discussion	G1.2, G3.2	3
BT#2	Process of quality formation	2nd week	Watch video and answer		3
BT#3	Classify and calculate cost of quality (English questions)	3rd week	Quizzes Case study	G2.2 G3.2	3
BT#4	Exercises on method and tools quality management.	8th week	Case study	G4.1	3
BT#5	Question about quality management system (English questions)	12th week	Quizzes	G4.1, G3.2	3
Mid-term test		9th week	Mid-term test	G1.2, G2.1 G4.1	**15**
Presentation					**20**
	Team work:	13th- 15th week	Presentation	G2.3, G3.1, G4.1, G4.2, G4.3	

				50
Final exam				
	The exam covers all the major learning outcomes of the course		Multiple choice test	G1.1, G2.1, G2.2, G4.3	

11. Course outline

Week	Content	Outcomes
1	**Chapter 1. Introduction to quality management (3/0/6)**	
	Theoretical content (3): - The position of quality in the global competitive tendency. - Quality management in developing countries. - Quality management in Viet Nam. **Main teaching methodology:** + Lecture + Question and answer	G1.1
	Homework (6): To find out the causes of quality management practices in Vietnam, some suggestions for existing problems? **Materials**: Chapter 1 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010 Chapter 1. - Nguyễn Kim Định – Quality Management – Publisher of National University Ho Chi Minh City.	
2	**Chapter 2: Some quality concepts**	
	Theoretical content (3): - Quality - Process of quality formation - Factors affect quality. **Main teaching methodology:** + Lecture + Discussion	G1.2

	+Watch video	
	Homework (6) Factors affect the quality of a particular product **Materials**: Chapter 2 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 1. Nguyễn Kim Định – Quality Management – Publisher of National University Ho Chi Minh City	
3	**Chapter 2: Some quality concepts**	

	Theoretical content (3):
	
	   1. Quality costs
	
	   2. Quality costs model
	
	   3. Exercises on quality costs
	
	Main teaching methodology:
	+ Lecture
	+ Teamwork
	+ Case study
		G2.2

	Homework (6) Present practical examples of quality costs, defining quality cost models. **Materials**: Chapter 2 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 2: Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City	
4	**Chapter 3: Quality management (3/0/6)**	

	Contents (3) - quality management history - Quality management technique - Quality management system: conception, management cycle, main principles. **Main teaching methodology:** + Lecture + Watch video	G1.2
	Homework (6) Learn the operation of quality management. **Materials:** Chapter 3 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 2. Nguyễn Kim Định – *Quality Management* – Publisher of National University Ho Chi Minh City.	
5	**Chapter 4: Quality testing**	
	Contents (3) - Overview of quality testing - Test quality management - Quality testing indexes. **Main teaching methodology:** + Lecture + Do exercises	G2.1
	Homework (6) - Review the methods of quality management system testing *Materials:* Chapter 6 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 5 - Nguyễn Kim Định – *Quality Management* – Publisher	

	of National University Ho Chi Minh City. Chapter 4 - Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City	
6	**Chapter 4: Quality testing (continue)**	
	Contents (3) - Some quality testing indexes - Shadow cost of Production **Main teaching methodology:** + Lecture + Do exercise	**G2.1**
	Homework (6) Exercises on quality testing indexes. *Materials:* Chapter 6 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 5 - Nguyễn Kim Định – *Quality Management* – Publisher of National University Ho Chi Minh City. Chapter 4 - Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City	
7	**Chapter 5: The methods, technique and tools of quality management.**	
	Contents (3) - Check sheet - Flow chart - Cause - effect diagram - Pareto chart **Main teaching methodology:** + Lecture + Practice on software + Case study	**G4.1**

	Homework (6) Use cause-effect diagram and Pareto chart to solve quality problem. *Materials:* Chapter 7 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 5 - Nguyễn Kim Định – *Quality Management* – Publisher of National University Ho Chi Minh City. Chapter 3- Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City.	
8	**Chapter 5: The methods, technique and tools of quality management (continue)**	

	Contents (3)
	
	   - Histogram
	   - Scatter diagram
	   - Control chart
	
	Main teaching methodology:
	+ Lecture
	+ Practice on software
	+ Case study
		G4.1

	Homework (6) Analyze practical case by control chart *Materials:* Chapter 7 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 5 - Nguyễn Kim Định – *Quality Management* – Publisher of National University Ho Chi Minh City. Chapter 3- Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi	1.

	Minh City	
9	**Chapter 5: The methods, technique and tools of quality management (continue)**	**2.**
	Contents (3) - 5S - 6 sigma **Main teaching methodology:** + Game + Lecture + Practice on software + Case study	**G4.1**
	Homework (6) Use 5S to personal students. *Materials:* Chapter 7, Chapter 8 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 6, Chapter 7- Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City	
10	**Chapter 6: Quality management system**	
	Contents (3) - Quality management system - ISO 9000; ISO 9001 **Main teaching methodology:** + Presentation by students and review by other students. + Discussion by students + Lectures comment, mark and conclude	**G4.2**
	Homework (6) Analyze ISO 9001 at the company	

	Materals: Chapter 9 – Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010. Chapter 4 - Nguyễn Kim Định – *Quality Management* – Publisher of National University Ho Chi Minh City. Chapter 5- Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City	
11	**Chapter 6: Quality management system (continue)**	
	Contents (3) - ISO 14000; ISO 14001 - The way to build and operate ISO 14001 **Main teaching methodology:** + Presentation by students and review by other students. + Discussion by students + Lectures comment, mark and conclude	**G4.2**
	Homework (6) Analyze ISO 14001 at the company *Materials:* Chapter 5- Bùi Nguyên Hùng, Nguyễn Thúy Quỳnh Loan – *Quality Management* – Publisher of National University Ho Chi Minh City.	
12	**Chapter 6: Quality management system (continue)**	
	Contents (3) - ISO 22000 - The way to build and operate ISO 22000 **Main teaching methodology:** + Presentation by students and review by other students. + Discussion by students + Lectures comment, mark and conclude	**G4.3**
	Homework (6)	

	Analyze ISO 22000 at the company *Material:* Chương 10– Giáo trình Quản lý chất lượng. Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hóa, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – NXB Thống Kê, 2010.	
13	**Chapter 6: Quality management system (continue)**	

	Contents (3)
	
	    - HACCP
	
	    - The way to build and operate HACCP
	
	Main teaching methodology:
	+ Presentation by students and review by other students.
	+ Discussion by students
	+ Lectures comment, mark and conclude
		G4.4

	Homework (6) Analyze HACCP at the company *Materials:* Chapter 10– Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management in Organizations* – Statistical Publishing House, 2010.	
14	**Chapter 6: Quality management system (continue)**	**G4.2**

	Contents (6)
	
	    - Good Management Practice (GMP)
	
	    - The way to build and operate GMP
	
	Main teaching methodology:
	+ Presentation using Power Point software
	+ Discussion	

	Homework (6) Analyze GMP at the company *Materials:* Chapter 10– Tạ Thị Kiều An, Ngô Thị Ánh, Nguyễn Văn Hoá, Nguyễn Hoàng Kiệt, Đinh Phượng Vương – *Quality Management*	

	15	**Summarized contents**	
		Contents (3)	G4.2
		- Review contents	
		- Highlight IMPortant issues	
		- Show total process mark	
		- Guide summative assessment method.	
		Main teaching methodology:	
		+ Lecture	
		+ Discussion	
		Homework (6)	
		Review all contents	

(Table top row continues from previous page: *in Organizations* – Statistical Publishing House, 2010.)

12. Course Policy:

- Group exercises found to be the same will be banned to take exams for all team members.
- Students who cheat in mid-term or final exams will be deducted 100% of the points
- Student who takes the exam under other identity, both students will be suspended or expelled.

13. **First Date of Approval:** August 1st, 2012

14. **Approved by:**

Dean   **Head of the Department**   **Instructor**

15.   Date and Up-to-date content

1st time:	Instructor:
Date: August 1st, 2015	
Content: Change the rate of Mid-term test from 30% to 50%.	
	Head of the Department:
2nd time:	Instructor:

Date: September 04, 2016 Content: add some English books for materials	Head of the Department:
3rd time: Date: September 25th, 2017 Content: add some teaching methods such as watch video, case study	Instructor: Head of the Department:
4th time: Date: August 20th, 2018 Content: add practice on Minitab software in statistical process control and six sigma.	Instructor: Head of the Department:

Appendix 5: Sample of final exams

HCMC UNIVERSITY OF TECHNOLOGY AND EDUCATION	**FINAL TEST OF SEMESTER 2 SHOOL YEAR 2017-2018**
	Course title: PRODUCTION MANAGEMENT
FACULTY OF ECONOMICS	Course code: PRMA331506
DEPARTMENT OF BUSINESS	Test code: 01 Test includes 02 pages
ADMINISTRATION	Duration: 60 minutes.
------------------------	Study materials are allowed

Question 1: (1mark)

According to your understanding, describe relation among chapters of course Production management 2?

Question 2: (5 marks)

There are two finish products constructed as below:
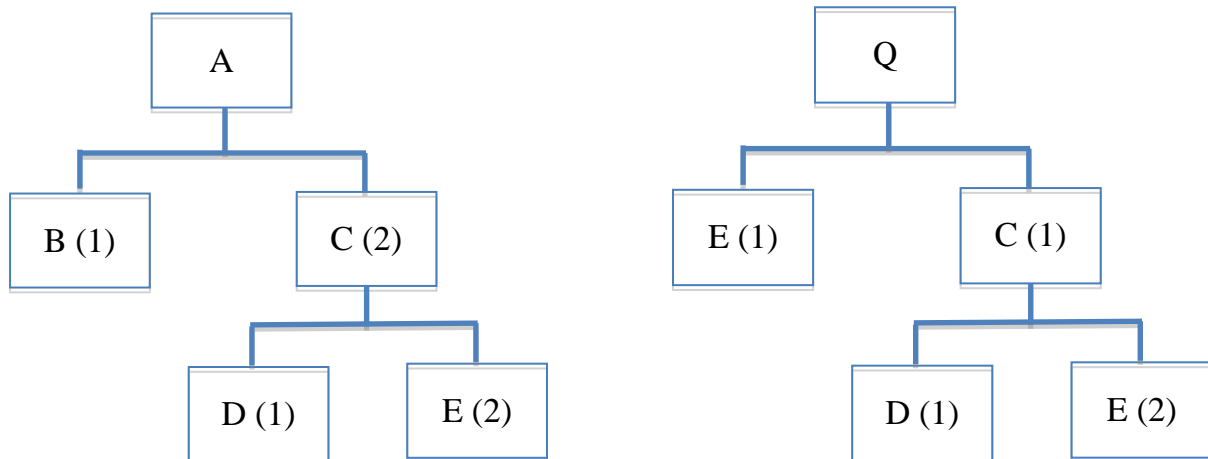
The company has received two orders for 150 units A and 100 units Q, and the first order is due for delivery on week 8 and the second on week 7. The below table should show information about on-hand inventory, safety stock, lead time and lot-sizing of all items:

Item	On-hand inventory	Safety stock	Lead time (week)	Lot size
A	10	5	4	1
Q	15	6	2	1

B	20	0	3	1
C	30	25	2	1
D	0	0	1	150
E	40	0	1	100

As schedule, the company will receive 25 units E on week 2 and allowable reject rate of item C is 10%. Making Material Requirement Planning (MRP) to ensure enough material for production and delivery on time?

Question 3: (4 marks)

X limited company specializes in the sale of fax machine with stable demand is 9,500 units/year. At present, the company is considering the choice between supplier A and supplier B; both of A and B's factories have been located in Japan, and B has distribution centre in Vietnam. Discount policy of two suppliers is given in the table below:

Supplier A				
Volume (unit)	0 -2,000	2,001 – 8,000	8,001 – 20,000	Above 20,000
Price ($/unit)	300	280	250	220
Supplier B				
Volume (unit)	0 -1,000		1,001 – 5,000	Above 5,000
Price ($/unit)	250		230	210

Supplier B has branch in Viet Nam, so it could provide product with lower price and shorter lead time as below:

Supplier	Order cost ($)	Lead time (month)
A	500	3
B	400	2

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Assume that holding cost accounts for 10% purchase price, and including storing, maintenance and invisible wear and tear.

   a. What are the reorder points of A and B?
   b. If you are company X's staff, will you choose A or B?
   c. If A locates new branch in Cambodia, its order cost will reduce to 200$. In this case, will company X change the choice or not?

Course Learning Outcomes (CLOs)	Test content
[CLO 2.2]: Analyze the relationship between the functions of production in the enterprise	Question 1
[CLO 4.2]: Calculate the parameters in inventory	Question 3
[CLO 4.1]: Create aggregate planning, material requirement planning, production schedules and forecasting.	Question 2

June 15th, 2018

Approved by Head of Department

(signature and full name)

HCMC UNIVERSITY OF
TECHNOLOGY AND EDUCATION

FACULTY OF ECONOMICS

DEPARTMENT OF BUSINESS

ADMINISTRATION

FINAL TEST OF SEMESTER 2 SHOOL YEAR 2017-2018
Course title: SUPPLY CHAIN MANAGEMENT

Course code: **SCMA440706**

Test code: 01   Test includes 02 pages

Duration: 75 minutes.

One A4 sheet is allowed

Question 1: (2 marks)

Demonstrating that Supply Chain Management is a dynamic profession in the Industry 4.0

Question 2: (2 marks)

What is the Bullwhip Effect? What are the causes and effects of the Bullwhip effect? Please provide solutions.

Question 3: (2 marks)

Green supply chain is a new development trend of businesses, helping to create competitive position and protect the environment. Explain the components of green supply chain model and give examples.

Question 4: (2 marks)

A factory X wants to find a location along National Highway 1A to set up a distribution warehouse. The coordinates and quantity of goods to be transported are shown below:

Location	**coordinates (x,y)**	**quantity of goods (ton)**
Phan Thiet	(1, 5)	100
Phan Rang	(6, 2)	200
Nha Trang	(3, 4)	300
Tuy Hoa	(5, 3)	200
Quang Ngai	(2, 7)	1200

To reduce transportation costs, factory X should choose which location for the most economical.

Question 5: (2 marks)

Company B has the following specific data: The annual sales volume is 460,000 units, the purchase price per unit is 26,000VND, the storage cost is 15% of the purchase price and the order cost is 700,000VND.

a. Calculate optimal order quantity

b. Calculate the optimal number of orders

Note: Examination officials are not allowed to explain the exam.

Course Learning Outcomes (CLOs)	Test content
[CLO 2.1]: Analyzes the role of information technology in supporting and creating effective co-operation in the supply chain, explains the Bullwhip effect, the causes of the effect and its consequences.	Question 1, 2
[CLO 4.1]: Analyze a sustainable supply chain.	Question 3
[CLO 1.3]: Presented four main activities in the supply chain: planning, procurement, production and distribution.	Question 4,5

July 06th, 2018

Approved by Head of department

(Sign and full name)

Appendix 6a: Executive summary of academic and support manpower plan

Based on HCMUTE's vision, mission, educational philosophy and strategic plans, FE has developed its own short-term and long-term strategic plans for the period of 2011-2016 with projections until 2020 and the period of 2017-2022 with projections until 2030. The manpower plans are established to reach the FE goals of fulfilling the needs for education, research and service.

FE manpower plans for the period of 2011-2016 (vision 2020)

Staff	2011	2012	2013	2014	2015	2016
Academic staff	25	30	29	31	30	31
- Assoc. Prof.	0	0	0	0	0	1
- Doctors	2	3	3	4	5	6
- Masters	23	27	26	27	25	24
Support staff	1	1	1	1	1	1
Total	**26**	**31**	**30**	**32**	**31**	**32**

In the period of 2017-2022, there have been changes in the FE's manpower plans when academic staff have been expected to finish their studying of PhD programmes.

FE's manpower plans for the period of 2017-2022 (vision 2030)

Staff	2017	2018	2019	2020	2021	2022
Academic staff	34	37	40	41	44	46
- Assoc. Prof.	1	2	2	3	3	4
- Doctors	9	12	16	18	21	23
- Masters	23	22	22	20	20	19
Support staff	1	1	1	1	1	1
Total	**35**	**38**	**41**	**43**	**45**	**47**

Policy for academic and support manpower plan:

HCMUTE and FE have policies to support manpower plan as followings:

- Supporting tuition fee and reduction of 50% of workload for academic staff studying PhD programmes.
- Rewards of 20 million VND for academic staff completing PhD programmes in time, 150% of this amount for early graduation, and adding more 20% for those of female academic staff.
- Rewards for academic staff getting higher emulation titles such as government's certificate of merit, the labour medals, and other titles including meritorious teacher, people's teacher, Assoc. Prof., Prof.

- Rewards of money and early salary increment for emulative titles at university and ministry levels, and university's President.
- Rewards for scientific research with national and international publications; Supporting fee and expenses for academic staff attending national and international conferences.

Summary of realization of academic and support manpower plan

Staff	Planned (2017)	Realized (2017)
Academic staff	34	33
- Assoc. Prof.	1	1
- Doctors	9	5
- Masters	23	27
Support staff	1	1
Total	**35**	**34**

The FE's total manpower met the initial plan. One lecturer took termination according to the faculty's human resource strategy. However, number of doctors weren't reached the objective as mentioned in the plan. The main reason is that FE expected academic staff who have studied PhD programmes from 2012 to graduate in 2017. However, they have just finished their final defense of PhD dissertations at the beginning of 2018.

Appendix 6b: Executive summary of training and development plan for academic and support staff

HCMUTE's academic and support staff are encouraged to enhance professional knowledge, competence of scientific research and skills in order to meet the requirements of integration and the university's development strategies. In FE, academic and support staff can regularly and accidentally submit their suggestions for participating in training courses. FE's academic and support staff have taken both long-term and short-term training including PhD programmes, professional courses, IT skills, and workshop participation.

Training and development plan for academic and support staff for the period of 2011-2016 (vision 2020)

Training courses	2011	2012	2013	2014	2015	2016
PhD. (No. of lecturer/year)	2	5	3	3	4	2
Seminar, workshop (No. /year)	2	2	4	4	5	6
Teaching activities (No. /year)	1	2	2	3	3	4
Education management (No. /year)	1	2	2	2	2	2
English (No. /year)	1	1	2	2	4	7
Total	**7**	**12**	**13**	**14**	**16**	**18**

Training and development plan for academic and support staff for the period of 2017-2022 (vision 2030)

Training courses	2017	2018	2019	2020	2021	2022
PhD. (No. of lecturer/year)	2	2	3	3	4	4
Seminar, workshop (No. /year)	6	7	8	8	10	10
Teaching activities (No. /year)	6	6	7	8	8	10
Education management (No. /year)	4	4	5	5	6	6
English (No. /year)	8	10	14	15	15	15
Total	**26**	**29**	**36**	**39**	**43**	**45**

Policy for training and development plan:

HCMUTE and FE have policies to support training and development plan for academic and support staff as followings:

- Supporting tuition fee and reduction of 50% of workload for academic staff studying PhD programmes.
- Rewards of 20 million VND for academic staff completing PhD programmes in time, 150% of this amount for early graduation, and adding more 20% for those of female academic staff.
- Funding for registration fee, travel costs and accommodation expenses for lecturers to participate in national and international seminars and conferences.
- Funding for short-term training courses including English courses.

Summary of realization of training and development for academic and support staff:

Training courses	Planned (2017)	Realized (2017)
PhD. (No. of lecturer/year)	2	2
Seminar, workshop (No. /year)	6	6
Teaching activities (No. /year)	6	7
Education management (No. /year)	4	8
English (No. /year)	8	8
Total	**26**	30

In 2017, number of academic staff studied PhD programmes met the plan. Both two lecturers have studied at oversea universities. Number of training courses in teaching activities and education management increased significantly due to FE's strategies in enhancing the training and management quality.

SURVEY QUESTIONNAIRE ON HCMUTE SERVICE QUALITY

In order to continuously improve the performance of the university, and to acknowledge student feedbacks, HCMUTE would like to receive comments from you for the activities of the university today. Your comments will be an important basis for developing solutions to improve HCMUTE service quality.

Please indicate the degree of agreement by selecting the appropriate box from 1 to 5

1	2	3	4	5
Strongly disagree	Disagree	Wondering	Agree	Strongly agree

Order no.	Evaluation criteria	Degree of agreement				
		1	2	3	4	5
A. Capacity and attitude of the student support staff						
1	The staff is very enthusiastic, cheerful, respect me.					
2	My complaints are always resolved quickly and satisfactorily.					
3	Academic counseling activities meet my researching and learning needs.					
4	Administrative procedures related to students are settled on time.					
B. Facilities						
5	The classrooms meet my learning needs in class.					
6	The library meets my researching and learning needs.					
7	The computer rooms meet my learning needs in class.					
8	The internet serves effectively for my study.					
9	I have found a lot of information on HCMUTE website.					
10	I have found the necessary information on the website of the departments/faculties in the university.					

11	The medical services meet my health care needs.					
12	The dormitory services meet my accommodation needs.					
13	The canteen is clean, spacious and especially, it meets my eating needs					
14	The garage is spacious and convenient for parking.					
15	The restrooms are clean.					
16	I can pay the tuition easily and quickly.					
17	The scholarships are awarded fairly and satisfactorily.					
18	Sports equipment and the stadium meet my training needs.					
19	The security issues on campus are always guaranteed in a safe condition.					
20	I satisfy with the quality of HCMUTE services.					

21. Other recommendations

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Thanks for your cooperation!

Appendix 11a: **List of solutions for improving the rate of employment**

No.	Reason for improvement	Solution
1	A lot of students are not good at English and have lack of soft skills, that are considered as important keys for students' jobs in the future.	1.1 Business English Club of UTE (BECUTE) periodically holds weekly meeting to improve the language competence of FE students, the Economic Student Club (ESCUTE) meeting held once every two months for sharing session about professional knowledge, skills and work experience, discuss teaching methods, participate in discussions, presentation in a particular course, etc. 1.2 Open English classes for students to help them develop their English skill. 1.3 Hold Resource Exchange International (REI) conference annually for REI experts sharing special knowledge and experience with FE students.
2	Many fourth-year students are not good in writing their curriculum vitae to apply for a job and many students do not know how to find and apply for a job.	2.1 Organizing Job Affairs – Trial interview – real success – help students learn how to write an impressed curriculum vitae and cover letter and interviewing skills. 2.2 FE according with ERO organise seminar "How to write CV – key element of job applications" and seminar "Capture the mind of the employers" [Exh 11.7: Solutions for improving the rate of employability].
3	Building a good partnership between the FE and many enterprises for getting more career opportunities for students.	3.1 Enhancing the connection to outside firms makes it easier for students to find graduation practice programmes and find jobs. 3.2 Encourage lecturers to make use of their personal relationship with alumni and company managers. 3.3 Invite the employers to attend students' thesis presentation to promote direct recruitment.
4	Recruiters are interested in candidates with practical working experience dealing.	4.1 Regularly organize company trips so that students can watch the actual working process in order to get more experience for the thesis. 4.2 Table 11.10 (Point 2.2)

Appendix 11b: List of stakeholder's feedbacks and improved solutions

No.	Stakeholder	Feedback	Solutions
1	Student	Teaching quality of FE academic staff	Observe the classes of lecturers having low rating to find out the reasons for this percentage and support them improve their teaching activities
2	Student	Enhance practicalities in teaching activity	2.1 Invited companies' representatives to participate in teaching some courses, workshops and seminar on academic and professional experience 2.2 Each year FE organizes for student a lot of field trips such as Thai Binh shoes, Kinh Do, Yakult, Acecook, Vietnamese beer, Jabil, Nike, etc.
3	Student Alumni Employer	A lot of students are not good at English and have lack of soft skills	As the solution for improving English and soft skills mentioned in table 11.9
4	Student Alumni Employer	FE student have to be made career orientation and ought to practice in companies from the second year	4.1 Updated and improved the curriculum through courses such as adding the course Practice in Production management, and FE students are also oriented occupation in the future through the course Introduction to Industrial management at the first semester. 4.2 Let students visit the factories to equip them with practical experience and career orientation. 4.3 Cooperate with companies to send FE student to practice in the real situation.

HCMUTE