ACQUIN
Akkreditierungs-,
Certifizierungs- und
Qualitätssicherungs-
Institut

Accreditation Report

Programme Accreditation of

Vietnamese-German University

Computer Science (B.Sc.)
Mechanical Engineering (B.Sc.)
Business Information Systems (M.Sc.)
Production Engineering and Management (M.Sc.)
Master of Business Administration (MBA)

I Procedure

Date of contract: 3 November 2021

Date of the submission of self-assessment report: 23 August 2021

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Attendance by ACQUIN office: Dr. Jasmine Rudolph

Accreditation decision: 5 October 2022

Peer review experts:

- **Professor Dr. Dirk Beyer**, Ludwig-Maximilians-University Munich, Professor and Head of Department of Computer Science Software and Computational Lab
- **Professor Dr. Andreas Bausch**, Justus Liebig University Gießen, Professor of Strategic and International Management
- **Professor Dr.-Ing. Dirk Drummer**, University of Erlangen-Nuremberg, Professor and Head of Plastics Technology
- **Professor Dr. rer. Pol. Dipl.-Ing. oec. Rainer Lehmann**, University of Applied Sciences Lübeck, Professor of Production Engineering/Logistics
- **Professor Dr. rer. pol. habil. Eric Schoop,** Technical University Dresden**,** Professor and Chair of Business Information Systems, especially Information Management
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Content

II Introduction

The experts would like to thank the representatives of the VGU as well as students that they have taken part in the discussions and willingly shared information and their views during the site visit. The discussions are valuable not only for the assessment of the institution, but also for a better understanding of the legal and sociocultural context of the local higher education system.

Evaluation basis for the peer-review experts is the self-assessment report of the VGU as well as intensive discussions during the site visit with the VGU management, deans and/or heads of the departments, heads of the study programmes, study programmes coordinators, teachers, lecturers, administrative staff, students, and graduates.

Main objective of the accreditation procedure is to assess the quality of the study programmes and compliance with the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG). The ESG standards are applied as main assessment criteria in the international accreditation procedure.

A group of experts was set up, which ensured that all areas relevant to the accreditation procedure (e.g., legal, structural, social etc. aspects) as well as the ESG were considered. The peer-review experts include professors, representatives of the professional practice and the student representative. A certificate with the ACQUIN seal is awarded upon accreditation of the study programmes.

1 The Higher Education System in Vietnam

Collapse of the Eastern Bloc began Vietnam to develop its own higher education system. Almost all higher education institutions are subject to the comprehensive supervision of the Ministry of Education and Training (MoET), but are often additionally assigned to the respective line ministries such as agriculture, health, justice or the local People's Committees, which makes it difficult to maintain uniform standards. In the course of the reform process initiated by the government to grant higher education institutions more autonomy, 23 Vietnamese higher education institutions have been participating in a pilot project since 2015 and are gaining experience with autonomy, for example in the management and administration of a higher education institution, in personnel decisions or in the design of study programmes.

The higher education entrance qualification has been determined with the National Upper Secondary School Examination since 2015. In the early 1990s, Master's programmes were introduced and in 1993 a government decree finally ended the Eastern European model of academic degrees and titles. Since then, university qualifications have been awarded in four levels:

Associate Degree (cao dang, vocational degree): three years duration, can be obtained at junior colleges and some universities, similar to a diploma.

Bachelor Degree (cu nhan): four to six years duration; six years for medicine, five years for engineering, and four years for the remaining subjects. Graduates receive a degree corresponding to their course of study, for example cu nhan (bachelor) or ky su (engineer) or bacsy (doctor).

Master's degree (thac si): The duration is two years full-time or three years part-time. Graduates of a bachelor's degree programme can follow up with a master's degree.

Doctorate (PhD, tien si): Master's graduates or excellent Bachelor's graduates in exceptional cases. Candidates who have successfully defended their dissertation can hold a doctorate in their field. It can take seven to nine years to obtain a PhD at a Vietnamese university, but for many Master's graduates it now takes only four years.

2 Short profile of HEI

The Vietnamese-German University (VGU) was the first public university in Vietnam to be established in 2008 pursuant to intergovernmental agreements. VGU has been developed following the model of German technical universities and customizing training and research methods to suit VGUs conditions. VGU interrelates the Vietnamese framework of higher education with German academic models and standards, whereby the study programs are organized in collaboration with German partner universities.

In 2005, the Vietnamese government issued No. 14/2005/NQ-CP on substantial and comprehensive renewal of Vietnam’s tertiary education in the 2006-2020 period and the Prime Minister promulgated Decision No. 145/2006/QĐ-TTg, dated 20/06/2006, on policy and major orientations to build universities on an international level in Vietnam. The aims were to foster change in quality of education and research as well as creating motivation to revolutionise and develop the higher education system serving the socio-economic development of the country.

In 2007, the Ministry of Education and Training of Vietnam (MoET) reported to the Prime Minister on the plan of building an excellent university with the support of the German government, the German State of Hessen and German universities. As a result, the VGU was established and officially opened according to the Decision No. 1196/QDD-TTg of the Prime Minister, dated 01/09/2008, based on a “Letter of Intention”, signed on 21/05/2007, and the Joint Declaration on the Cooperation for the Establishment of the Vietnamese–German University, signed on 29/02/2008 by the MoET and the Hessen State Ministry of Higher Education, Research and the Arts (HMWK). After that, cooperation with

Germany was expanded and today includes the Federal Ministry of Education and Research (BMBF).

The VGU strives for a unique profile of a university through bi-national cooperation in partnership between policy-makers, managers and academics of a newly emerging country and of an economically advanced country. The university also strives for close ties between teaching and research, a high academic quality combined with high relevance for technology, economy, society and culture, thus achieving compatibility of high-tech and sustainability. This undertaking, therefore, has the chance of becoming a model with a noteworthy impact on higher education and society in Vietnam and beyond. The VGU further strives towards a visible size and high academic quality. This strong emphasis on high academic quality is unique so far among the German-backed universities in various countries. Moreover, partnership among countries with so different economic, social and academic settings is based on the ambitious hope that collaboration based on mutual understanding can work out well.

The Vietnamese-German University (VGU) is a public Vietnamese university developed in close partnership with Germany, which is based on the principles of academic freedom, unity of teaching and research and institutional autonomy. The VGU is committed to excellence in research and teaching in the fields of smart engineering, information technology as well as business and economics relevant for both local and global sustainable development. Our graduates are trained to combine rigorous theoretical knowledge with critical thinking skills to creatively solve problems and are ultimately well prepared to assume leadership in the next generation of scientists, engineers and managers. As an acknowledged research university with a distinctive profile, VGU is a driver for the economic, social and environmental development of Vietnam. The values of the VGU are: Excellence in research and teaching, Academic freedom and integrity, Creative learning environment, Diversity, Sustainability and honesty and transparency.

3 General information on the study programmes

Location	Vietnamese-German University (VGU), “Computer Science” (B.Sc.)
Date of introduction	September 2013
Faculty/ department	Faculty of Engineering
Standard period of study (semesters)	6 semester/ 3 years
Number of ECTS credits	180
Number of study places	80
Number of students currently enrolled	204
Average number of graduates per year	16
Target group(s)	
Admission requirements	
Form of study	full-time
Tuition fee	37,900,000 VND (~ 1,329 EUR) for Vietnamese students, 56,850,000 VND (~ 1,994 EUR) for international students per semester

Location	Vietnamese-German University (VGU), “Mechanical Engineering” (B.Sc.)
Date of introduction	September 2015
Faculty/ department	Faculty of Engineering
Standard period of study (semesters)	3,5 years
Number of ECTS credits	210
Number of study places	90
Number of students currently enrolled	197
Average number of graduates per year	20
Target group(s)	
Admission requirements	
Form of study	full-time
Tuition fee	37,900,000 VND (~ 1,329 EUR) for Vietnamese students, 56,850,000 VND (~ 1,994 EUR) for international students per semester

Location	Vietnamese-German University (VGU), Business Information Systems” (M.Sc.)
Date of introduction	September 2009
Faculty/ department	Faculty of Engineering
Standard period of study (semesters)	2,5 years
Number of ECTS credits	120
Number of study places	20
Number of students currently enrolled	83
Average number of graduates per year	11

Target group(s)	
Admission requirements	
Form of study	part-time
Tuition fee	40,000,000 VND (~ 1,403 EUR) for Vietnamese students, 60,000,000 VND (~ 2,104 EUR) for international students per semester

Location	Vietnamese-German University (VGU), “Production Engineering and Management” (M.Sc.)
Date of introduction	Winter Term 2022/23
Faculty/ department	Faculty of Engineering
Standard period of study (semesters)	2 years
Number of ECTS credits	120
Number of study places	20
Number of students currently enrolled	40
Average number of graduates per year	20
Target group(s)	
Admission requirements	
Form of study	full-time
Tuition fee	30,600,000 VND (~ 1,073 EUR) for Vietnamese students, 45,900,000 VND (~ 1,610 EUR) for international students per semester

Location	Vietnamese-German University (VGU), “Master of Business Administration” (MBA)
Date of introduction	September 2012
Faculty/ department	Faculty of Economics and Management
Standard period of study (semesters)	2 years
Number of ECTS credits	120
Number of study places	25
Number of students currently enrolled	87
Average number of graduates per year	12
Target group(s)	
Admission requirements	
Form of study	part-time
Tuition fee	56,100,000 VND (~ 1,967 EUR) for Vietnamese students, 84,150,000 VND (~ 2,951 EUR) for international students per semester

III Implementation and assessment of the criteria

1 ESG Standard 1.1: Policy for quality assurance (ESG)

Institutions should have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders should develop and implement this policy through appropriate structures and processes, while involving external stakeholders. (ESG)

1.1 Implementation

The VGU has a policy for quality assurance called Quality Policy that is made public and forms part of the university's strategic management. The Quality Policy has a formal status: It was approved by the Senate in early 2020 and then officially promulgated by the President on 8th April the same year. The policy is publicly available at VGUs website via the link https://vgu.edu.vn/quality-assurance-at-vgu and internally accessible via the quality handbook. The development and designing of the policy involved different stakeholders. A first draft of policy had been presented by the former Head of Strategy and Quality Management (SQM) Department and discussed at the Quality Assurance Committee (QAC) meeting in summer 2018.The members of the QAC had consisted of academic and administrative staff of the VGU, including the Vice President for Academic Affairs as Chair of Committee. The work on the policy was later taken over by the succeeding Head of Department and an adjusted draft was presented for discussion again at the QAC meeting in November 2019. Together with a German consultant for quality management could she finalise the Quality Policy and bring it to approval in 2020. Based on the published quality principles had the VGU continued to work on a Quality Management Regulation, which was later approved by the Senate and issued by the President in December 2020. This regulation forms a broad statutory framework for the quality management at the VGU in which the structure, the role allocation and quality-relevant procedures are laid down. In conjunction with the Quality Policy, the Quality Management Regulation provided the basis for an extensive revision of the university's Evaluation Regulation, which was after its approval promulgated in May 2021 and replaced the regulation from 2017.

The aim of VGUs Quality Policy is the creation of a common understanding amongst the internal and external stakeholders about quality matters. As a German-backed Vietnamese university has the VGU adapted a German quality approach to the Vietnamese situation in order to benefit from that quality assumption. Quality management consists of the main components quality planning, quality assurance, quality control and quality improvement as part of VGUs strategic management. It is closely related to

the mission of the VGU since quality management has to ensure that pursuance of the university's strategic goals will lead to the promised outcomes. According to VGUs statement is the university committed to excellence in research and teaching, a value which is explicitly dedicated to VGUs quality approach. The strong interrelation between strategic and quality management is mirrored by the merger of the two working areas towards the SQM department. To the outside, the quality philosophy of the university represents the unique profile of the VGU in Vietnam's higher education system.

In accordance with its values and its German quality approach, the Quality Policy of the VGU states twelve principles that frame its quality concept: The Reconciliation of Vietnamese, German and international standards in VGUs Quality Policy as well as the unity of research and teaching. Excellence in research and creative and collaborative learning approach. Moreover the Quality along the student life cycle, lecturers and students as main actors of high-quality teaching and learning. The VGU and society as well as the responsibility as a key to quality management. The Assessment of resources and improvement of processes, the Service and process orientation and the Capacity building of staff as well as the Strategy and Quality Management.

The Quality Policy is mainly, but not solely, dedicated to the academic and administrative staff from the faculties, departments and centres of VGU. The SQM department, in general, and the Quality Assurance Office as its sub-unit, in particular, are responsible for maintaining a comprehensive quality handbook on the institutions Wiki. The handbook involves the quality-relevant regulations and processes, spanning various areas of operations. However, VGUs internal Wiki is not very user-friendly structured which has led to stagnation in updating the content by the respective units, again leading to VGUs members avoiding looking for information on the Wiki. As a consequence, it is intended to provide a relaunched quality handbook in form of an interactive pdf document. The policy is certainly the pillar of VGUs institutional quality management system. Based on the quality philosophy, the Quality Management Regulation implements the objectives and principles stated in the policy. The Evaluation Regulation explicitly responds to continuous improvement cycles by regulating the conduct of any student, graduate and alumni evaluations and surveys. All three official documents together form the regulatory framework for quality assurance at VGU. In accordance with these have various target processes been developed and described, which are being verified and optimised steadily.

In November 2019, before the Quality Policy was finalized, the quality management consultant had conducted one workshop each for administrative and academic staff on quality culture and implementation. At least "on the paper" does the policy support the development of a quality culture at VGU. However, reality has shown that the VGU still faces obstacles in implementing and living quality culture in all divisions. While it seems very inherent to some staff

and these are willing to contribute even more, others refuse adapting their behaviour and working style towards a quality culture. Targeted workshops with compulsory attendance which involve only a small, pre-defined group of people are a possible counteraction to be tested.

1.2 Assessment

1.2.1 Aspects that apply to all courses of study

VGU's quality management system (QMS) adapts a German quality approach to the Vietnamese higher education system. The statement sets high-quality expectations, stating that VGU is committed to excellence in research and teaching. VGU has a formal policy for quality assurance which is publicly available. The quality policy underlines three issues: (1) The overall objectives, (2) VGU's quality philosophy and (3) the institutional setting. The quality policy therefore covers all relevant areas for quality assurance.

With the main actors in VGU's Quality Management System (i.e. faculty, Quality Assurance Office, integrated in the SQM Department, and the Quality Assurance Committee whose members are elected by the Senate and appointed by the President) several important bodies and institutions are sufficiently involved in the development and implementation of the quality policy.

The expert group was convinced that the university has developed a quality assurance policy aimed at continuous improvement of the educational process, research activities, and implementation of innovative projects. This policy is based on the mission, vision, and values of the university. The quality policy is reflected in local acts and regulations - internal documents of the university.

VGU yet should give itself a clear profile either as a research-oriented university of applied sciences or a fundamentally research-oriented university. The orientation of teaching and the profile of faculty should be adapted accordingly. The acquisition of third-party funding could be beneficial here.

The university should develop a financial plan that shows strategic possibilities for cost reduction for the duration of the accreditation. There should be a strategic development of personnel competences in professorial and didactic aspects on the Vietnamese side. In addition, costs could be reduced by transferring the German flying faculty to an e-learning strategy, which would no longer make it necessary for German teaching staff to attend classes in person.

The development of a digitalisation strategy is recommended.

In this context, the timely establishment of the "Centre for Excellence in Higher Education (CEHE)" is recommended: All members of the university can attend technical and didactic

training courses here, e.g. in the area of e-learning. The IT personnel capacities should therefore also be increased in order to be able to carry these out.

There should be a better integration of professional practice: Companies, institutions, etc. should receive better information about the degree programmes and their graduates, and (dual) cooperation opportunities should be created.

The establishment of an industry advisory board as an advisory body is recommended. Sponsorship opportunities could arise here.

1.3 Conclusion

The criterion is **fulfilled.**

2 ESG Standard 1.2: Design and approval of programmes and Program Planning and Training Activities

Institutions should have processes for the design and approval of their programmes. The programmes should be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme should be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area. (ESG)

2.1 Implementation

2.1.1 Aspects that apply to all courses of study

The VGU is a special construct. It is a Vietnamese public university based on a German university model. Since its foundation have the study programmes at VGU been run in collaboration with German partner institutions. In the case of VGU this means that a higher education institution in Germany opens a study programme at VGU and controls it for the first six years. After that period shall the programme be transferred to VGU, meaning that the ownership of the programme will be handed over to VGU. The transition process, where the teaching load is gradually taken over by local faculty from the flying faculty, ends with a comprehensive programme review, including a market research and workshops with internal and with external stakeholders. As a result, a modified programme will be developed which then needs to undergo external evaluation.

In March 2019, the former Head of SQM department presented a draft of Program Development and Review Guidelines in the QAC meeting. The committee discussed

and approved the guidelines to be used for reviewing and developing VGUs study programmes In early summer 2021, the SQM department started reviewing and improving the guidelines and its annexes. The revised guidelines then got the acknowledgement from the Faculty Council (FC) of the Faculty of Engineering (FoE) in early August and will be presented to the Senate in its next meeting. As its name implies are the Program Development and Review Guidelines compiled with the aim of providing support for those people engaged in program development. They give guidance for the usual case of programme takeover with further development as well as for the possible case of developing a new programme by initiation of VGU. Yet are the main criteria of programme development similar for both cases. These are the workload measurement, the duration of study and aspects of modularisation. Furthermore, the to-be-written programme concept for transferring an existing program to VGU has to include the ILOs, the curriculum and any other modifications. Since a programme before transition is offered by (a) German partner(s), the programme objectives need to be aligned with the institutional strategy of VGU at the stage of transition.

The guideline for Program Transition Project regulates the extensive programme review embedded in transition. At the beginning, a PRC is established. The committee is implemented for reflecting features of the study programme in transition as well as for substantial programme review in the run-up to accreditation. In an internal workshop involving VGU stakeholders such as staff and students and a subsequent one further involving external stakeholders such as representatives from companies, other higher education institutions and VGU alumni, the participants discuss about all programme-related matters and how they can be improved and adjusted to VGU and the Vietnamese higher education market. A Program Review Report rounds off the transition phase.

The transition and review of a programme is led by the AC (AC) as Chair of PRC, strongly supported and guided by the SQM department and the provided documents. These do not only include the relevant guidelines and processes but also the result reports of the internal and external evaluations and surveys of students, graduates and alumni about their satisfaction and success. In addition to the provision of the written materials were all ACs briefed by SQM in a meeting about the transition and accreditation in advance . Based on the accumulated knowledge about programme development could the ACs conduct the review workshops goal-driven in view of improving and adapting their respective programme. Topics such as student progression and student workload were discussed and modules were removed from or added to the curriculum, changed or reordered with the aim

of increasing student progression and successful graduation. In this context, some programmes also deliberated the right aiming of (an) internship(s) within their curriculum. The programmes further have different mechanisms to help students progress across the student life cycle from admission to graduation. Meanwhile, all programmes at VGU follow the

European Credit Transfer and Accumulation System (ECTS), also after transition. Therefore, VGUs Bachelor and Master programmes are designed based on the recommended number of ECTS. What is more, the expected student workload of each module in a programme is revealed in ECTS.

2.1.2 Computer Science (B.Sc.)

The Bachelor study program in Computer Science (CSE) was established at the VGU in 2013 in cooperation with the University of Applied Sciences Frankfurt am Main (FRA-UAS), Germany, to offer a full-time bachelor's program with the duration of three academic years (6 semesters) after completing one foundation year. CSE is offered at VGU campus in Binh Duong province. As a part of the strategic development of VGU, after eight years of operation the CSE program has been transferred from the German partner to VGU. The transition process stands for the structured handover of ownership and control for a study program from the partner university to VGU. This consists of program review, double degree negotiations with the partner university and the accreditation of the modified CSE program. The transition includes the gradual replacement of German professors who have taught in the program by local VGU core faculty members (both international and Vietnamese). At the end of this process, the number of courses taught by German professors shall be reduced to 20% at the minimum. Moreover, adjustment and/or modification of the curriculum shall be implemented if necessary, aiming at better meeting the demands of the Vietnamese labour market - both in industry and academia - and the potential students.

The transition for CSE started in 2020. The goal of program transition is improving and adapting the study program to the Vietnamese context. The program objectives, intended learning outcomes (ILOs) and curriculum were redesigned in order to adapt to the Vietnamese situation, follow the mission and vision of VGU and government policy, and satisfy VGUs stakeholders. For this endeavour, a program review committee (PRC) for CSE was established in January 2021.A program survey involving alumni and current students was conducted in December 2020. Furthermore, a meeting with some industry partners for market and program survey of the CSE program review was organized on 15/12/2020. The program review workshop with internal stakeholders was on 12/01/2021 and the program review workshop with external stakeholders was on 09/03/2021.

A concept identifying the profile of the study program, especially ILOs, curriculum and degree model for the modified CSE was developed and presented in the workshops to collect feedback from different stakeholders. Computer scientists, who have completed their university studies at the VGU, have a deep understanding of underlying computer science principles, information technologies and software engineering practices with an active and

project-based learning experience. Students are acquainted with a wide range of applications, ranging from the manufacturing and service industries to further scientific activities and also relating in contents to activities which are concerned with the design, development and deployment of software-technical systems in the most comprehensive sense. The program prepares students to be competitive on the job market and also to pursue their higher education on Master and Ph.D. levels in Computer Science and Information Technology fields. The CSE program at VGU is committed to impart the following ILOs. By the time of graduation, the graduates will be able to apply knowledge of computing and mathematics appropriate to the discipline. They are able to analyse a problem, and identify and define the computing requirements appropriate to its solution. Student have the capacity to design, implement and evaluate a computer-based system, process, component, or program to meet desired needs and use current techniques, skills, and tools necessary for computing practices. They are able to function effectively on teams to accomplish a common goal and understand professional, ethical, legal, security, and social issues and responsibilities as well as communicate effectively in a variety of professional contexts. The qualification resulting from a programme should refer to the correct level of the national qualifications framework for higher education as well as to the Framework for Qualifications of the European Higher Education Area (EQF). The Vietnamese Qualifications Framework (VQF) differs from the European one, yet they also resemble: Bachelor programmes refer to level 6 in both the EQF and the VQF, and Master programmes to level 7.

Comparing the three Master programmes MBA, BIS and PEM with each other, it becomes clear that the BIS and the PEM programme's ILOs are much more detailed than those of the MBA programme. Both programmes have a strong focus on knowledge and understanding, PEM further on the development of students' autonomy and responsibility. The qualification area of skills seems to play a minor part although it could have been assumed that it would be more important in the Master programmes. However, given that the MBA has in general less ILOs listed, this may not hold true for the business Master programme. Comparing the descriptors within the programmes, it becomes obvious that the few ILOs of the MBA are well distributed over the qualification areas. The ILOs of the BIS programme focus on knowledge and understanding. The greater part of the PEM ILOs is related to knowledge and understanding but a not insignificant part refers to autonomy and responsibility which involves the personal development of the students.

After the completion of the transition phase and before entering the accreditation process, the Programme Concept and the Specific Examination Regulation of the programme, including Curriculum and Module Handbook as its annexes, need to be drafted and to be approved. The specific examination regulation complements the General Examination Regulation. The approval process for the programme documents is integrated in the transition

project. According to this, the documents need to pass a formal institutional approval process. First shall the documents be reviewed and discussed in the next QAC meeting (the transition project guideline has this step after the FC approval, however, in a newer document on programme review, the Major Programme Review Process, the order has been officially changed). Article 7 of the Quality Management Regulation describes the QAC as a permanent committee to the Senate, being the central advisory and supervisory body for the internal quality management system of VGU. However, due to the tight deadlines in the transition phase – both internally regarding Senate and externally concerning Agency submission deadlines – the discussion and approval step of QAC was skipped. Therefore, recommendations from the QAC members could not be included in the finalisation of the programme documents. The next step, the discussion in and approval from the FC, was followed as regulated. And so was the final step, the discussion in the Senate and its approval of the programme documents. These have been later sent to the agency for overview and evaluation.

2.1.3 Mechanical Engineering (B.Sc.)

The Bachelor's program in Mechanical Engineering (MEN) was first started at VGU in 2015 as the second location of the Bachelor's program in Mechanical Engineering at Ruhr-University Bochum (RUB) with a strong support from Otto-von-Guericke-University Magdeburg (OVGU). RUB's curriculum was implemented at VGU with the teaching faculty comprising both German lecturers (the so-called flying faculty) and local lecturers—either invited or genuine VGU lecturers. The ratio of the former to the later has gone down over the last five years following a planned process aptly named "Vietnamization." The purpose of the MEN program at VGU is to train and educate graduates in the field of Mechanical Engineering that follows a German standard. The MEN program is supposed to educate outstanding students at VGU to become highly qualified Engineers in mechanical engineering with an internationally recognized education standard. With the teaching support from famous professors in Germany and local qualified lecturers, the MEN program provides motivated students a good academic environment to reveal their talents and gain expertise at fast pace. The aims of the MEN program are to open doors worldwide for qualified Vietnamese graduates in the field of mechanical engineering in industry and academia in Vietnam and abroad. With the outstanding features of the MEN program at VGU and German background and quality as well as collaboration with German partner universities, the graduates with solid background in mechanical engineering are expected to lead changes adapting to the local market. For the time being, the MEN program only provides two majors including Engineering design and automation and Energy and process engineering. The extension with a variety of majors such as Automotive engineering and Mechatronics engineering is expected to be implemented in the near future. In addition, research orientation and practical approach as well as local and

global orientation of the MEN program are planned to emphasize to be consistent to VGUs mission, vision and the portfolio of the faculty.

2.1.4 Business Information Systems (M.Sc.)

The Master study program in Business Information Systems (BIS) was established at VGU in 2009 in cooperation with the two partners Heilbronn University of Applied Sciences and Furtwangen University of Applied Sciences, Germany, to offer a part-time master's program with duration of two and a half academic years (5 semesters). BIS is offered at VGUs campus in Ho Chi Minh City (HCMC). As part of the strategic development of VGU, ownership of all programs and degrees shall be transferred from the partner university to VGU after a certain time of training.

After eleven years of operation the BIS program has been transferred from the German partners to VGU. It is expected that the adjustments to the curriculum of the BIS program should attract more prospects, thus receiving more enrolments and releasing more successful graduates into society. A PRC for BIS was established and conducted a review process focusing on different aspects of the BIS program. A number of surveys involving industry in Vietnam, BIS alumni and current students were conducted from February to April 2020. The program review workshop with internal stakeholders was on 21/07/2020 and the program review workshop with external stakeholders was on 22/10/2020. Based on the outcomes of the program review workshops, a modified program profile and curriculum for the future study program conception were proposed. BIS is a professional part-time graduate program that prepares students for innovative careers as business technologists. Business technologists are and will continue to be in growing demand as information technology plays a pivotal role in whether a business fails or succeeds in today's rapidly changing business environment. Thus, business technologists focus on the management, not only the creation, of technology. The program objective of BIS is to train students to become specialists who possess knowledge in both business and technology, thus the ability to improve situations in a company by finding creative solutions, i.e., the focus is on promoting a strategic thinking mindset along with creative abilities. In particular, the ILOs of the program are:
Students should identify and formulate different Business and Revenue Models in the era of digital transformation as well as redesign and optimize the Business Processes of the functional areas of a company by utilizing state-of-the art technologies. They should apply advanced management skills while mastering complex IT projects and setup and assess IT projects from design to implementation as well as quality management. Students should be able to reflect on the new technologies, especially regarding topics such as Data Science, Cyber Security, Block Chain, Virtual Reality, for further self-study and self-research activities.

Regarding the target group, the BIS program is best for anyone who is working in the field of IT and technology and wants to advance in parallel her/his career to a leadership position as business technologist in an international environment. Also, young university lecturers can deepen their knowledge in this area and prepare for pursuing a Ph.D. degree. In the best case, applicants should have a bachelor's degree in Information Technology (IT) or Management Information Systems (MIS) or Computer Science and possess some years of working experiences. However, students with economic and management background are also accepted if they can prove some years of working experience in IT-related job positions. After finishing the study program, BIS graduates are supposed to hold management positions with decision making responsibility in international enterprises, domestic or abroad. They are also fully qualified for an academic career with the perspective to become a researcher and get a Ph.D. degree in Germany or from another international university.

2.1.5 Production Engineering and Management (M.Sc.)

In 2013, the Master of Global Production Engineering and Management (GPEM) was launched at the VGU in collaboration with Technical University Berlin (TU Berlin). GPEM is a full-time two-year (4 semester) Master's program offered in Binh Duong, Vietnam. The Master of Science program in GPEM was launched with the purpose of developing and offering high-levelled compound talents to manufacturing industries in Vietnam. All GPEM courses are held exclusively in English taught by teaching staff of TU Berlin and VGU, as well as by other qualified lecturers if necessary. Tutoring of the students, supervision of master theses, and further support to the students are also carried out by this group of lecturers. Since 2013, GPEM has been successful in training eight students' intakes. Relying on a strong academic and teaching cooperation between the two partner universities, the program's curriculum was designed to train technical personnel and managers in the manufacturing, service, or logistics industries in Vietnam to meet the great demand of social needs. By the combination of theoretical knowledge and practice, the program aims to boost personal comprehensive capabilities in the fields of production, management, engineering, cross-culture communication, as well as to train highly specialized talents with a global vision. The program prepares students for careers in international networks in the area of technology management rather than only focusing on business administration. GPEM has a strong network of industrial partners in education cooperation. Every year, many industrial scholarships are offered with financial support for GPEM students to pay tuition fees and living expenses. On the other side, students will commit to working for the sponsor companies after graduating. The win-win relationship between the program and companies helps to attract prospective students. However, this also causes the dependence of a number of enrolled students on the offered industrial scholarships. From intake 2018, the companies have changed the scholarship policy. Candidates who applied to the GPEM program have to successfully pass a four-month internship

at the sponsor companies before starting the study program. On one side, companies rejected the candidates who did not express serious working commitments after graduating. On another side, many candidates claimed that they were afraid of bonding contracts without strong clues of future salary and career path. And they refused the scholarships. These have created an extreme drop-down in the number of enrolled students in intake 2018, 2019, and 2020.

As part of the strategic development of VGU, ownership of all programs and degrees shall be transferred from the partner university to VGU after a certain time of training. The transition project for GPEM started in 2020. A PRC for GPEM, established in December 2020, conducting a review process focusing on different aspects of the GPEM program. In November 2020, the PRC conducted a number of surveys involving industry in Vietnam, VGU GPEM alumni, and current GPEM students. The program review workshop with internal stakeholders was conducted on 17/12/2020 and the program review workshop with external stakeholders was conducted on 02/02/2021.

Under the present agreement, VGU will formalize its own degree alone from intake 2022. Therefore, with the beginning of intake 2022, the study program GPEM Vietnam shall have a different name to distinguish from GPEM TU Berlin. The adjusted name is Master's program in Production Engineering and Management (hereinafter PEM). In order to increase the attractiveness of the program for potential students who work, a flexible full-time model is planned, enabling students to work while studying. The PRC has developed and adjusted the objectives, ILOs, and curriculum after taking into account recommendations from internal and external stakeholders of the workshops. The so-called blended learning (combination of digital approaches and traditional face-to-face classroom methods) will be adopted in order to facilitate working besides studying. This new method increases the learning flexibility and facilitates the schedule for students. In the old model, under the agreement with TU Berlin, the program's target audiences are graduate students of Vietnamese, Cambodian, Myanmar, and Laotian nationalities. With the new model to be started from intake 2022, PEM will not limit eligible students based on their nationalities. Toward the strong international orientation and diversity of the program in the future, candidates from any country will be able to apply to PEM if they meet the entrance requirements.

2.1.6 Master of Business Administration (MBA)

The Master of Business Administration (MBA) program at the VGU was launched in 2012 (Intake 1). Leipzig University (LU) managed the MBA program from 2012 (Intake 1) until 2016 (Intake 5) and VGU staff coordinated the activities of the MBA program in Vietnam on behalf VGU and under the direction of LU. The students studying the MBA program at VGU could then transfer to LU if they successfully complete all of the modules in the first year at

VGU and also achieve the required level of English Language proficiency. The transition project for MBA started in 2017 (Intake 6) where the management of the first year of the program was taken over by VGU. VGU was then also responsible for the development of the curriculum for the first ten modules and also the pedagogical approach to learning and teaching. As the students would be transferring to LU VGU worked closely with LU to ensure that all aspects of the first ten modules fulfilled the requirements of LU. A PRC for MBA, established in August 2019, conducting a review process focusing on different aspects of the MBA program. From February to March 2020 the PRC conducted a number of surveys involving industry in Vietnam, VGU MBA alumni, and current MBA students. This initial meeting of PRC was conducted on 01/10/2019. The program review workshop with internal stakeholders was conducted on 06/05/2020 and the program review workshop with external

stakeholders was conducted on 10/06/2020. Graduates of the MBA degree programs will have a comprehensive, detailed, and specialized knowledge on the latest state of knowledge of the discipline. They have technical and conceptual skills for solving problems, especially strategic problems. They will be able to lead teams in the framework of complex tasks and present their work results. They can define new application- or research-oriented tasks under reflection of the social, economic and cultural impact.

The VGU MBA is a postgraduate program with two options that prepares participants for leadership and management roles in business:

Major 1: Focuses on Small and Medium Enterprises (SME's): Major 1 focuses more on SMEs and has a substantial research component where students can apply their knowledge to SMEs in a "real world" situation.

Major 2: Focuses on Enterprise Governance: Major 2 is a generalist program where students develop their knowledge and skills across the promotion and development of business enterprises and general business knowledge. The study program provides the students with the specific ability to work in an interdisciplinary team and in the context of different cultures.

The goal of the MBA program is to provide the students with the knowledge and skills to become competent business leaders and managers.

2.2 Assessment

2.2.1 Aspects that apply to all courses of study

The expert group was able to gain a good and deep impression of all study programs. These convince of a good quality and very good study program concepts. Therefore, the expert group

would only like to share the following general impulses for the further development of the study programs at VGU:

Elective courses should be offered to enable students to develop their individual profiles.

There should be greater interdisciplinary cooperation at degree programme level in order to promote networking and the exchange of students across degree programmes and to utilise synergy effects in teaching, e.g. through polyvalent modules.

The proportion of online teaching should be mapped uniformly in the module descriptions.

2.2.2 Computer Science (B.Sc.)

The curriculum of the Bachelor's program "Computer Science (B.Sc.) is, in the opinion of the review panel, completely appropriate to adequately achieve the formulated goals of the Master's program.

The program is appropriately designed in terms of the sequence of modules and the focus of the content in order to provide students with the necessary competencies for the job market. All courses are appropriately credited. The forms of teaching and learning are appropriate. Student feedback during the accreditation process also did not provide the review panel with any evidence of criticism of the general program structure.

2.2.3 Mechanical Engineering (B.Sc.)

The curriculum of MEN is well structured. Relevant and needed subjects were implemented. The curriculum is setup very close to the recommendations of the german Fakultätentag. Timeline as well as qualification targets and contents of the lectures were explained sufficiently. There is a strong and well-established cooperation of national and international lecturers.

In the future it is suggested to point out one or more specific scientific/technical profils. This could be done by more elective moduls and thereby also could enable students to point out more an individual profile. In parallel this could and should be done by strengthening the interaction of education and research. More practical courses for students, integrating them particularly in research activities should be setup. Therefore, it is also necessary to strengthen laboratory equipment particularly to upper industry level. Strategic frame contracts with industry could support these activities.

2.2.4 Business Information Systems (M.Sc.)

BIS is a part-time study program, consisting exclusively of compulsory modules, addressing both business management (11 modules) and computer science (10 modules) competencies. Principally the program fits well into the overall strategy of VGU, covering the specific demands

of this study field in Vietnam's industry and administration with sufficient reference to international and intercultural aspects. The professional career opportunities as business technologists with sound skills in digital management and leadership are made transparent adequately, the expected student workload is sufficiently defined. But the experts question the overall studyability of the tight part-time program (24 credits per semester) with reference to the drop-out cases and long-term students provided in the self-documentation on p. 76.

The equal balance of objectives provides a strong business mindset on academic level, underpinned by technical skills for the operative realization of business strategies. This is seen very positive by the experts. On the other side, the also claimed availability of the necessary knowledge and skills to advance to doctoral training programs is not seen in this general formulation. Scientific methods are only addressed in the final module "Introduction to Thesis Project" in a rather general manner, providing rather for application than for research perspectives. Elective or compulsory optional courses for the provision of research competences and methods could be placed besides rather application-oriented courses, thus supporting the early decision for pursuing either a professional career or a scientific career (Ph.D. program).

In order to increase studyability, a fast track – as currently provided – and a regular – extended - track could be introduced in the curriculum. This would help the part-time students better to integrate the study workload into their professional and social/family workload.

To support an early decision between application and research focus, explicitly research-focused elective courses/modules could be provided besides explicitly application-oriented modules.

2.2.5 Production Engineering and Management (M.Sc.)

Based on the VGU strategy to offer the new Master's program in Production Engineering and Management (hereinafter PEM) is a good and well-designed component of the overall university strategy with an emphasis especially on technology and economy. The PEM program combines these core elements in an interdisciplinary study program.

The new PEM program is a good and well-structured Master program for ambitious students. It balances engineering and technical topics on one hand and management and business topics on the other hand.

Therefore, the objective of the PEM program to prepare students to be "life-long learners with successful careers in design, research, improvement, and management of systems in global manufacturing and industrial service organizations" (module handbook, pg. 4) can be achieved. The teaching level is adequate for a Master's program.

The curriculum is a good combination with modules which provides important general competencies (e.g. module project management) and modules which cover current and relevant future topics (e.g. module smart factories). Nevertheless, some modules seem very specific (e.g. MTM) for a more general engineering and management program; it might be an option to broaden the scope of such modules and integrate additional methods and concepts. Unfortunately, all modules are compulsory for the students which seems disadvantageous. To enhance the number of modules offered, selected modules from other VGU master programs can be integrated in the PEM curriculum as electives. To enhance the research orientation of the PEM program a module like research project could be considered as an additional module in the curriculum. In such a module the existing module "scientific writing" could be integrated. At the moment the teaching is very much based on lecturing. To achieve a stronger research orientation in the PEM program and to prepare the students for their future work the integration of more projects and seminars in the curriculum would be preferable (e.g. a seminar investment planning, projects in the field of sustainability).

The module handbook describes in a good way the modules of the program. However, it would be helpful if the structure of the module descriptions would consistent (e.g. online activities are mentioned in some module descriptions, even if they are "none"). Furthermore, the literature mentioned could be updated and the descriptions of the modules "Internship" and "Thesis" should be added in the module handbook.

The modules clearly structured; the credit points vary between 3 and 6 (except the internship and the thesis with 9 resp. 18). The workload is clearly defined and seems appropriate. However, to a certain extend it remains unclear how the program can be completed within four semesters when students work part- or full-time. The blended learning approach at VGU is helpful to increase the flexibility for students to study the PEM program while having a job. Nevertheless, a plan how the PEM program can be studied part-time should be considered (e.g. which modules in which sequence).

The successful graduate of the PEM program has acquired a wide and deep understanding in the field of production. The employability for these successful graduates seem to be very good, especially in companies in Vietnam.

2.2.6 Master of Business Administration (MBA)

VGU followed a comprehensible process for the design and review of the MBA programme. The programmes' structure and content are developed based on explicit intended learning outcomes. Major 1 clearly focuses on developing leadership, management and entrepreneurial skills within the particular context of Small and Medium Sized Enterprises (SMEs). Major 2 is a more generalist programme. For both majors, the programme targets on the specific abilities that are necessary within a cross-cultural business environment. This said, the pro-

gramme is very much in line with VGUs set up (Vietnamese-German collaboration) and its strategy and mission. As VGU is committed to rigorous and applied teaching, the differentiation between a research-oriented Major 1 (with more emphasis on research project, research colloquium and master's thesis) and Major 2 with intensified coursework (30 credit points) seems suitable. It offers students two different streams from which they can choose depending on their individual interests and development aims. Internal and external stakeholders, including alumni and students, were involved in the review and further development of the programme.

One issue needs to be addressed: The programme has a restricted number of courses from which students can choose. Although it covers the main areas of Business Administration (e.g., Finance, Supply Chain Management, Marketing, Innovation) and, thus, provides broad-ness. Nevertheless, the option of a more fine-grained specialization (with several courses in one academic field) is not offered.

Concerning the learning outcomes, five targets are defined. Those targets and the elements of the programme adequately reflect the requirements from the professional field as well as the demands on Master level. The targets and the programme also reflect the purposes of higher education of the Council of Europe.

The curriculum is transparent. It adequately describes the overall structure and the modules of the MBA programme. Not only the expected student workload seems sufficient, but also the demand. Given the students' feedback, finishing the study programme in four semesters in addition to a full-time workload is only achievable by very few students. The competitiveness among students was also underlined – as was the importance of a strong support by a student's company.

Overall, the programme is well-structured, aligned to VGUs context and meets the requirements one would expect for a part-time programme on Master level.

2.3 Conclusion

The criterion is **fulfilled.**

3 ESG Standard 1.3: Student-centred learning, teaching, and assessment and Student Services

Institutions should ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

3.1 Implementation

The VGU is built on Humboldt's paradigm of the unity of research and teaching. The university is committed to excellence in research and teaching in the fields of engineering, information technology as well as business and economics. VGUs mission in teaching is to train the students to combine rigorous theoretical knowledge with critical thinking skills to creatively solve practical problems. Thereby they are well prepared to assume leadership in the next generation of scientists, engineers and managers. To meet students' different options VGU has study programs specialized in different areas. At the moment the university has seven Bachelor and nine Master study programs, belonging to two faculties, the Faculty of Engineering (FoE) and the Faculty of Economics and Finance (FoEM). New study programs will be established in the future. VGU puts a strong emphasis on student-centred learning in all aspects of the learning process including curriculum development, pedagogy, and assessment. This is particularly important to ensure that VGU students through active learning have the necessary knowledge and skills to pursue a challenging career or to successfully undertake postgraduate studies. VGUs lecturers are encouraged to use teaching methods that encompass the four core learning profiles i.e. auditory, tactile, visual and reading/writing. VGU also encourages the use of new educational technologies to complement the traditional learning practices to create a diverse and differentiated classroom. In order to successfully accomplish this approach to learning VGU has the following guiding principles: different modes for the delivery of classes that are appropriate to the subject matter and also the level of the students' experience. Different examination forms that are appropriate to the subjects and ILOs of courses, e.g. written exams, oral exams, seminars, equivalent course works, a written work or homework. All module examinations are offered at least twice a year. Students play a central role: The university has a service orientation instead of an authoritarian attitude. The role of administration is to serve and support lecturers and students so that they can focus on their research, teaching and learning. Regular evaluations are undertaken by the Quality Assurance Office to determine if the modes of delivery are effective and meet for the students' needs. These evaluations include formal program and module evaluations, less formal meetings between the students and the ACs, and in-class feedback to the lecturers. This feedback provides valuable insight into how to increase the flexibility and variety of the pedagogical methods. Surveys of graduates are regularly conducted, providing valuable feedback that can help to improve the quality of programs. VGU uses a creative and collaborative teaching - learning approach and sees its faculty and staff as facilitators for students' learning processes rather than as supervisors. This approach encourages a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher. Also, this approach promotes mutual respect within the learner-teacher relationship. In this situation, creative learning includes trial and error; mistakes are an important

source of advancement. A stimulating learning environment is triggered by intellectual curiosity and opportunities for collaborative learning, since learning from and with peer students is an effective preparation for real world problem solving. The students are encouraged to develop leadership skills to manage and take responsibility for both their individual work and also for assignments that involve teamwork. Students are also encouraged to provide feedback at the appropriate level where they are encountering problems that are affecting their performance. The channels for this are through the Faculty Assistants for basic administrative issues, the AC for academic and, where appropriate personal issues, and Student Affairs for issues regarding enrolment and other issues beyond the scope of the responsibility of the AC. The welfare of the students is paramount, and support is provided on an ad-hoc basis where required. That is of particular relevance in the current situation where some students are facing hardship situations. The core program team and lecturers have collaborated closely to ensure that students were not adversely affected for reasons beyond their control.

To enhance the learning experience of the students VGU is utilizing a variety of platforms for online teaching like Google Classroom, Google Drive, Google Meet and Zoom and Moodle as an online learning platform that is in the process of being integrated into the VGU learning management system.

Project-based learning is also important at VGU and this is an effective way to build up the very valuable skills of being able to manage projects. There is a Project management module in a number of programs, and, in addition, all programs incorporate team assignments into many of their modules. This also provides students with a practical teamwork experience and an introduction to the principles and techniques of project management. With regards to the module on Project management the students have to work in teams on projects related to their major, e.g. the MEN students undertaking this module had to choose projects with a substantial relationship to mechanical engineering. This had a dual benefit of developing their competencies in project management in addition to applying their mechanical engineering knowledge and skills into a virtual “real life” situation. The assessment of project-based learning activities includes written project plans, project proposals, and also the effective incorporation of relevant technology into their assignments. In conclusion, VGU has a strategic approach to student-centred learning that involves encouraging the students to take responsibility for their learning and the upskilling of our lecturers to be able to effectively implement student-centred learning techniques. The effective utilisation of technology helps to achieve this in addition to an assessment philosophy that encourages and promotes student-centred learning.

3.1.1 Computer Science (B.Sc.)

In accordance with the Internal Labor Code of VGU, CSE lecturers must show an open, enthusiastic, polite attitude; listen to opinions and try to satisfy students' proper requirements. Academic staff can choose freely between appropriate pedagogical alternatives so long as that alternative is permitted at VGU and is of academic effectiveness. Academic staff are invited to try modern types of lecture or combinations of different methods to deliver lectures most effectively. Academic staff are encouraged to use real life illustrations when lecturing a topic, so that students learn also practical application. Lecturers shall be available for consultancy, at least two hours per week. A lecturer is required to offer hours to meet with students on all academic matters on weekdays. The timeframe must be communicated to students in a proper way. Lecturers are free to decide whether students have to make an appointment for a consultation or if they can come unannounced. The consulting times are used to discuss various topics related to respective courses such as understanding problems, examinations, research topics, assignment expectations, internships and theses. CSE has different forms of exams such as written exams (closed book exam or open book exam), oral exams, final projects, and presentations. Some modules require students to pass prerequisites so that they can participate in the final exam. The grade management is electronically done via VGUs SIS system. Exams are organized twice a year. Exam plans are informed to students at the beginning of each semester. Students need to register to take exams if they want to participate in exams. (Note that a student can choose not to take the exam after the student has studied that module.) If students are absent from exams due to illness, they must prove it by a medical certificate. The certificate must be issued immediately to the Examination Board and has to prove the impact on the ability of the participation of the examination. The board shall decide on the recognition of the reasons relied on. If the Examination Board accepts the reasons for the failure the test in question will not be counted to the number of attempts. Special exams and conditions are designed and given to students with corresponding disabilities. The exam system is fair and transparent. The details about the coursework examination (forms and deadlines; registration and admission; pass and repetition; failure and withdrawal; additional examinations; alternative arrangements and legal protection periods), organization (examiners and assessors; proof reading rules; and fraud and breach), evaluation and recognition (including inspection) and theses and completion of examination are stipulated in the General Examination Regulation of the VGU. The details about the organization and assessment of the internship, the senior project, and the thesis of the CSE program are stipulated in the Specific Examination Regulation of the CSE program. Students can retake an exam of a certain module twice. Students can redo their Bachelor thesis only once. Failing a module three times or the thesis twice leads to a de-registration of the student. The exams of all modules will be organized at least twice per year. About two

weeks after a module is taught, the first exam is organized. The second exam will be held at the beginning of the coming semester.

3.1.2 Mechanical Engineering (B.Sc.)

For the academic years from 2015/2016 to 2018/2019, block seminars that schedule a block of two or three weeks entirely for each module were implemented for teaching activities. Besides, the exams for these block modules were scheduled immediately after the finish of the teaching. Starting from the academic year 2019/2020 up to now, a mixture of block seminar (for flying faculties) and linear mode (for local faculties) that schedule 4-5 months for each module has been implemented. In this way, the exams for these block modules are held at the end of the semester. Lectures convey the contents of a course on a subject or a subfield of engineering and the necessary prerequisites. Important working methods are presented, and the content is placed in a larger context. The basic ways of thinking and objectives applied in the respective subject area are explained and justified, and the resulting connections are derived. Students are expected to independently develop a further comprehension of the lecture materials using the cited literature and do supplemental exercises. This will prepare them for the independent research that is crucial in possible doctoral training. In principle, all aspects of examination are regulated by VGUs General Examination Regulation and the Specific Examination Regulation of the MEN program The former takes precedence over the later in cases of discrepancies. To solicit feedback about the effectiveness of the teaching, as well as all other relevant aspects of that teaching, students are requested to answer the module evaluation questionnaire at the end of each module. For assessment, 18 different questions related to all aspects of teaching and learning are asked students to evaluate when 70% 2 of the module has been completed. After receiving the evaluations, the SQM department at VGU will analyse the data and compile a report, which will subsequently be sent to both the lecturer and the AC for further actions. The results are an indicator of whether or not the teaching methods and activities promoted the achievement of the module ILOs. Tentatively, the indicator Quality Of Teaching is considered positive if students respond that the module objectives/outcomes are clear to them, and that the teaching is effective overall.

3.1.3 Business Information Systems (M.Sc.)

The VGU teaching philosophy is fully implemented in the BIS program. At BIS, most of the students are employees at international companies, many of them have years of working experience. Thus, the teaching philosophy reflects those following features of student-centred learning and teaching: Respects and attends to the diversity of students and their needs, enabling flexible learning paths; considering and using different modes of delivery,

where appropriate as well as flexibly uses a variety of pedagogical methods. A regularly evaluation and adjustment concerning the modes of delivery and pedagogical methods; to encourage a sense of autonomy in the learner, while ensuring adequate guidance and support from the teacher and to promote mutual respect within the learner-teacher relationship. Even though the teaching stuff has appropriate procedures for dealing with students' complaints.

It is to notice that the BIS program follows the German principle of freedom in teaching and research, which means that lecturers are given a very high autonomy power to conduct teaching as well as design the examination formats. Because students of BIS are mostly experienced employees in the industry, in nearly all courses the chosen assessment format is group project work with presentations and/or seminar papers. Individual presentations normally take place at the beginning or in the middle of the course, while group presentations are to be organized on the final day of teaching. Students are encouraged to apply knowledge and experience in their daily work, combined with theoretical and practical skills gained in the course, to solve case studies and prepare solutions for a specific problem. Thus, teaching methods are also of various forms. In order to train students for not only analytical skills but also teamwork, interpersonal and debating capabilities, the most common teaching type is group discussion under supervision and assistance of the lecturer on multiple topics. Following the "learning by doing" principle, our courses focus less on the traditional method of lecturing, but rather let the student practice their self-research skills, which is extremely important for doing the master thesis project. Due to the pandemic, more online teaching has been applied since the summer term 2020 which brings certain difficulty to the interaction between students and lecturers. However, the satisfaction of students is still kept on a high level thanks to the professional ways of designing the courses of our lecturers, both in Vietnam and Germany. In principle, all aspects of examination are regulated by VGUs General Examination Regulation and the Specific Examination Regulation of the CSE program.

3.1.4 Production Engineering and Management (M.Sc.)

PEM believes that the student is the heart of the learning process. The students in the current GPEM program come from diverse backgrounds in engineering and other fields with production experience. The program uses a wide variety of educational methods, instructional approaches, learning experiences, and academic support strategies to support them to achieve the ILOs. Some pedagogy approaches are for example project-based learning; Learning by doing through lab exercises or experiment; Question and Answer (Q&A) sessions; enrich classroom learning activities as well as field trips, seminars, supervision cooperation or career-focused learning. PEM cooperates with VGUs library to organize sections related to finding learning material sources, writing skills and plagiarism checking services.

3.1.5 Master of Business Administration (MBA)

All aspects of student-centred learning, teaching, and assessment are given careful consideration in the MBA program to ensure that the ILOs are achieved and also that the students get the best possible learning experience. The students in the MBA program come from diverse backgrounds in business and are business owners, business leaders, or employees. As the goal of the program is to develop business leaders and/or managers for the future we need to develop a curriculum with knowledge, skills, and values to achieve this and use effective approaches to pedagogy to obtain optimum learning outcomes for the students. The assessment strategy of the MBA program is designed to complement the curriculum and pedagogy used in the delivery of the MBA modules. The goal of the VGU MBA program is to provide a strong theoretical understanding in addition to the practical skills needed for the graduates to become leaders/managers of the future. Therefore, in light of this, the assessments have both a comprehensive theoretical foundation and strong practical focus, like writing business reports, developing creative business models or preparing and presenting business proposals.

The assessment methods used for each module are designed by the lecturer and approved by the course coordinator. Consultation, with regards to both the existing methods of assessment and new methods of assessment, are undertaken with both the QAC and the Academic Senate. We also consult with other programs to help develop best practice in assessment across the University. The MBA program uses both traditional and contemporary methods of assessment to obtain optimum outcomes from the assessment. The methods used include e.g. written examinations, oral presentations, team assignments and research assignments. The use of technology also adds value and Google Drive is used to create folders for both individual and team assignments. The lecturer can then provide regular online feedback on this platform to students up until the due date of the assignment. Feedback on final assignments is provided both in person and online to ensure that the student is fully aware of all aspects of their performance in relation to the learning outcomes of the module. Face-to-face feedback is provided directly to the students after their presentations in addition to written feedback being provided online on their PowerPoint presentation document. The assessment process for the MBA program, for both formal and informal assessments is as for example diagnostic, formative or summative assessments. In conclusion, the overall assessment strategy of the MBA program is to ensure that the MBA students complete the MBA program with the knowledge and skills needed to become leaders/managers of the future. The assessment strategy is designed to complement the content of the MBA curriculum and pedagogy used in the delivery of the MBA modules.

3.2 Assessment

3.2.1 Aspects that apply to all courses of study

The experts explicitly approve the undertaken steps to enhance the flexibility and quality of learning processes, e.g. team work, project-orientation, mix of self-guided learning and group discussions, and last but not least the provision of modern platforms and tools supporting the digitalisation of HE. The variation of teaching and learning methods is sufficient and made transparent in the module description, including explicit references to online learning activities. The assessment regulations, modes and criteria are sufficiently made clear, the assessment modes are aligned with the addressed competence levels (ILOs).

To exploit the potential of the intended student-centered teaching and assessment in combination with the provided digitalisation platforms and tools, the academic staff should be trained in understanding and applying student-centered, outcome-oriented pedagogics and how it can be supported by advanced arrangements for the digitalisation of HE (going far further than the content- and teacher-centered traditional understanding of e-learning). Therefore, the experts welcome the intended implementation of the Centre for Excellence in Higher Education (CEHE). They explicitly regret that the CEHE initiative has not been approved by the VGU administration so far, as singular experiences like the DAAD IVAC project, which provides advanced learning content for the module Usability Evaluation and Testing, should thus methodically be documented as best practice and be used as training materials for the academic staff of all modules and be extended to all study courses. The intended implementation of the CEHE should be pushed in the short term, to improve the training of the academic staff and improve the teaching excellence.

3.3 Conclusion

The criterion is **fulfilled.**

4 ESG Standard 1.4: Student admission, progression, recognition, and certification and Student Services

Institutions should consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression, recognition and certification.

4.1 Implementation

The VGU provides all necessary conditions and support for students to make progress in their academic career while studying at the university. During all phases from admission of a student unΘl the awarding of a degree, predefined regulations structure and determine the student life cycle at VGU. These policies, admission processes and criteria are implemented consistently and in a transparent manner and are always accessible for the students. Every year VGU revises and publishes application guidelines for the Bachelor and Master programs. These are supposed to help the applicants through the entire application process. Applicants can apply via VGUs online platform apply.vgu.edu.vn and are asked to read the instructions carefully before and during the application. In case they have questions, they are provided with two contact points within the VGU Marketing and Student Recruitment (MSR) Department through an Hotline or per Email. VGU provides Admission Regulations that determine the admission procedures and criteria for both Bachelor and Master programs. These regulations are constantly monitored and if necessary adjusted. The admission at VGU for the Master programs is organized via technical interviews. These interviews are conducted by two lecturers of the respective program (usually the AC of the program accompanied by another professional in the field). The applicants will be given a score for the interview and will be ranked and admitted based on their overall score, which combines the interview score with their Grade Point Average (GPA). For the admission to the Bachelor programs VGU offers different modes of admission. Most applicants chose to take part in the once in a year by VGU organized "TestAS" to define their ability to study. (Vietnamese) Applicants can also choose to use the results of the yearly centrally organized "National Entrance Exam" to be admitted to VGU or the results/transcripts of their last high school years. In any of these cases, future students are conditionally admitted until they have passed the "National Entrance Exam" successfully. International Candidates can be also admitted directly with a respective international certification stating that they have finished their high school successfully abroad. As all of the programs at VGU are entirely taught in English, all applicants need to provide sufficient proof of their English knowledge to be admitted (IELTS 5,0 or equivalent) and after one year at least IELTS 6,0 English knowledge. At VGU the General Examination Regulation for Bachelor and Master Programs of the VGU includes regulations about General Provisions, Structure of Study, Coursework and Organization of Examinations, Evaluation and Recognition, Theses and Completion of Examination as well as Degree and Final Clauses. The General Exam Regulation is supplemented by Specific Exam Regulations for each program. They have been created to define content and program related issues, and to detail the examination requirements more precisely. The detailed curriculum and the individual module handbook are part of this specific examination regulation. The student progression is monitored closely in a newly implemented online Enterprise Resource Planning (ERP)/Student Lifecycle

Management System and all modules are constantly evaluated. To support the students throughout their studies in different areas, several stakeholders work together at VGU:

The ACs together with the Program Assistant are responsible for program specific consultation for the students. The Student Affairs Officers at the Department of Academic and Student Affairs (ASA) provide, for example support when it comes to general student counselling, issuing certificates, issuing degrees, engagement in student activities. The International Office within the ASA Department informs the students actively about exchange opportunities and funding options for their study stay abroad promoting mobility. Those professionals are accompanied by an active Student Association, formed of elected students, who are functioning as a bridge between the student body and the lecturers and the administration. At VGU graduation represents the culmination of the students' period of study. As stated in the General Examination Regulation a student has passed the final examination if all obligatory modules including the thesis have been successfully completed. Official documents concerning the successful completion of the final examination will be issued that comprise: VGU Degree; Transcript of Records with all module grades and the topic of the thesis and its evaluation and the Diploma Supplement. All documents will be issued in English and Vietnamese. The official documents will be signed and stamped with the seal of VGU.

4.1.1 Computer Science (B.Sc.)

Students who have graduated or will graduate from high school and have a desire to study can apply to the CSE program of VGU. In order to be admitted to the CSE program, a student must acquire an upper-intermediate English level with at least an IELTS band 5.0 or equivalent, and successfully pass one of the two annual admission procedures: An entrance examination consisting of a core test and an engineering-module subject-specific test as well as an admission by having sufficient scores resulting from the national high school examination in the same year of application satisfying the minimum VGU admission scores. The subject groups used for admission include three subjects of Mathematics, Physics and Chemistry/English. The detailed requirements and recruitment process are stipulated in the Admission Regulation for Undergraduate Study Programs of VGU. The decision on admission is made by the VGU Admission Committee. A student passes the foundation year if the requirements in the Foundation Year Regulation are satisfied. According to the British Council, a person with IELTS band 6, a competent user, generally has an effective command of the language despite some inaccuracies, inappropriate usage and misunderstandings; and can use and understand fairly complex language, particularly in familiar situations.

4.1.2 Mechanical Engineering (B.Sc.)

There are different ways of admission modes and the VGU should think about some tools to make all admission modes to have an equal standard that maintains the quality of possible candidates.

4.1.3 Business Information Systems (M.Sc.)

The admission requirements are provided in an official document by VGU every year at the beginning of the student recruitment season. For BIS, applicants need to possess a relevant Bachelor degree with a GPA of at least 6.5 and IELTS of 5.0 in order to be invited to the entrance interview. The candidate then has to pass the entrance exam or interview before getting an admission letter with or without scholarship information.

4.1.4 Production Engineering and Management (M.Sc.)

The PEM supports the students from the time they apply up until graduation. The AC and program assistant are the main contact points and are mainly responsible for providing support and assistance to students. When the students apply to VGU, the AC will contact them to consult the content of the program as well as answer all concerns related to curriculum, scholarships, internships, career prospects and opportunities, living situation, study, and research, etc. to ensure that the candidates have a full view of the program. The AC further supports prospective students who have financial difficulties applying for suitable types of scholarships. PEM always organizes an orientation week before starting the first semester. During the orientation week, students have a chance to meet VGUs top managers and relevant departments. Students will have discussions with representatives of PEMs industrial partners, join teamwork activities, a workshop, and enjoy a factory tour. Regulations, policies of the program and university, an overview of the library system and databases also are conveyed during that week. Lab facilities are introduced through interesting exercises instructed by lecturers and lab engineers. The semester overview always is sent two weeks in advance before the semester start. During the study time, the program assistant offers close contact for student services: exam registration/deregistration/review, facility problems, forms or documents from the university, etc. Matters that are more serious academic or administrative issues will be forwarded accordingly to the AC or the relevant departments. The AC is always kept in the loop and may intervene if necessary. The program frequently organized industrial tours with the topic related to the current courses. Lecturers are encouraged to integrate collaborate industrial projects into module big assignments. During summertime, students are encouraged to do factory internships. The AC and the Industry Relations and Technology Transfer Center (IRTTC) will support connecting students to companies for internship opportunities. During the students' internship, the program follows up and has the updated students' progress from their supervisors at the

training placement. Each semester the AC holds a class meeting or organizes a gather lunchtime with the students to receive feedback on their progress and inquiries. Before thesis time, the AC will provide a list of potential advisors with their expertise fields and encourage students to contact by themselves the potential advisors for thesis topics. The faculty assistant provides all the needed forms, follow up on the thesis deadline and remind students. The program also helps students check plagiarism. The faculty assistant liaises with the ASA department to ensure that all academic records are correctly updated for the graduation process.

4.1.5 Master of Business Administration (MBA)

The MBA supports the students from the time they apply up until graduation. This support is in addition to the support provided by ASA and other sections of VGU. The student lifecycle, under the current system, can be divided into four main sections i.e. Recruitment and Selection, Semesters 1 and 2, their Transfer to Germany, and finally the Graduation process. When the students apply to VGU they are assessed by ASA staff and shortlisted for an interview and, if needed, an English test. The MBA interview, usually of 30 minutes duration, is conducted by the AC and Assistant AC. The purpose of this interview is to ensure that the interviewee fully understands what is involved in undertaking an MBA program and how it will help them in their careers. The programme always follows up on any questions the applicant may have post interview and send them a congratulatory email when they enroll. The Saturday before the start of the semester the new students have an orientation with an Introduction by the president an MBA Coordinator, an overview of the library system etc. Two class representatives are appointed to be the focal point of communication between the MBA Team and the other students. MBA AC and Assistant AC hold a class meeting each semester with the students to receive feedback on their progress and concerns. The students are encouraged, on an ad-hoc basis, to communicate with the AC on academic issues and the Faculty Assistant on administrative issues. The programme then seeks to resolve any issues in an amicable way for all concerned parties. The students are provided with information on their transfer to Germany both at the orientation and at the beginning of semester 2. The MBA Faculty Assistant, in collaboration with ASA, supports the students by providing information and guidance on following the correct procedures and completing the necessary documentation in all aspects of their transfer. This includes communicating with the German partner University to ensure a smooth transition for the students. During their time in Germany the MBA team is available to provide guidance and counselling where needed. The MBA Faculty Assistant liaises with ASA to ensure that all academic records are correctly updated. In addition the MBA Faculty Assistant is available to address any question or concerns that the students may have during the graduation process.

4.2 Assessment

4.2.1 Aspects that apply to all courses of study

The recruitment of applicants as well as the admission of students and issues of recognition function fully at VGU. Students feel very well looked after administratively and know all their contacts. The management of study programmes undergoing accreditation is guided by standards and principles in the policy of the VGU. Bachelor, Master and PhD students are the main consumers of the study programmes, and their interests are at the heart of the implementation of these programmes. The educational environment models the following characteristics of students: individuality, desire for greater freedom, integrity process, personal and professional growth, independence, and self-respect.

Monitoring of academic achievements of students is carried out during the academic period. The schedule of exams and consultations is approved by the university's management, then brought to the attention of teachers and students with enough time to prepare the examination session. Forms of examinations are considered at meetings of the teaching staff.

The results of the current assessments are brought to the attention of students and discussed at meetings of the VGU Based on their results, measures are taken to improve the quality of classes and individual student work, and the methodological and informational support. Students who failed to pass an examination session on time due to illness or other valid and properly documented reasons, are given the opportunity to extend the session and set the deadlines for its passing.

The monitoring of graduates' employment is carried out on a regular basis. . Alumni are also actively involved in popularization of study programmes undergoing accreditation by holding open days, meetings, round tables, etc.

4.3 Conclusion

The criterion is **fulfilled**.

5 ESG Standard 1.5: Teaching staff and Teaching Composition

Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff.

5.1 Implementation

Quality assurance principles provide the framework for competencies of academic staff. A competent academic staff will be able to design and deliver a coherent teaching and learning

curriculum as well as to apply a range of teaching and learning methods and select most appropriate assessment methods to achieve the expected learning outcomes. The teaching staff will develop and use a variety of instructional media and monitor and evaluate their own teaching performance and evaluate courses they deliver. They do reflect upon their own teaching practices and conduct research and provide services to benefit research and provide services to benefit stakeholders. Lecturer recruitment at VGU is striving for the establishment of an internationally experienced core faculty, be it Vietnamese citizens trained in their doctorate at universities abroad or international scholars from other countries who are interested to continue their career at a developing university with a strong research focus. At present, all VGU lecturers - Vietnamese and international - must hold a Ph.D. degree awarded by an internationally based university. About a third of VGUs faculty earned the doctoral degree from a Western European university, others from a North American university, an Asian institution from Japan or South Korea or an Australian institution. After the transition of a study program from the German partner university to VGU – planned to be after six years of running the program – a ratio of 80:20 from local faculty to flying faculty shall be kept up to meet the expectations of students and maintain the specific profile of a program. According to the Trilateral Agreement between Vietnam, the BMBF and the HMWK, which was signed in September 2020 and took effect in April 2021, the German partner institutions shall continue to be involved in the teaching so as to uphold German quality standards normally for six more years in accordance with the cooperation agreements concluded with the VGU or for longer periods as appropriate for as long as the VGU makes reference to the German connection to the study program concerned. VGU perceives its teaching staff as one of the most important learning resources. Therefore, staff development is important at VGU to attract, maintain, and retain a high-quality teaching workforce. VGU offers a number of opportunities and developed support mechanisms to help its teaching staff further develop their professional and teaching skills in order to meet the above quality standards. The teaching staff recruited by VGU, both faculty and adjunct lecturers, have met certain criteria to ensure the teaching effectiveness. However, they still need to develop necessary skills and experience to communicate their knowledge and understanding effectively to students and other characteristics as a lecturer in order to be effective and prepare themselves for all the challenges they will face throughout their careers. The teaching staff should be prepared for increasingly multicultural classrooms at VGU, teaching students with diverse learning needs, effective use of information and communication technologies for teaching and more engagement in evaluative and accountability frameworks.

Therefore, faculty, departments of SQM, HR, RM and IRTTC were involved in a variety of activities to encourage and facilitate the teaching staff‘s needs of development on

teaching and professional skills. Faculty development plays a key role by enforcing high standards for the selection of faculty members and establishing instruments for the scholarly, pedagogic and personal evolution especially of young faculty members. Professional development needs for academic staff are systematically identified so that appropriate training and development activities can be implemented to fulfil the identified needs. Quality Assurance Policy, Quality Management Regulation, Lecturer Promotions Regulation, module evaluations, staff satisfaction surveys and teaching staff appraisals are tools used for this purpose. However, due to a current spending freeze activities on CPD (continuous professional development) have become a rarity lately but are planned to be resumed as soon as may be. Quality management is responsible for supporting faculty members to maintain and develop their academic competence base. Therefore, the SQM department has organized several training workshops on quality assurance and teaching every year. Since the establishment of the department in 2017, different training courses and workshops were organized like Training for accreditors, Program Design Workshop (European Credit Transfer System, Intended learning Outcomes, Curriculum Mapping), Preparation on accreditation and module description, Teaching for Quality Learning (Intended learning outcomes (ILO) on module level, Alignment between the program and module's ILOs, Alignment between ILOs, teaching strategy, student assessment, Develop grading criteria (rubrics), Quality Culture for Admin and Academic staff, Developing and Operating Internal Quality Assurance System (IQA) at universities, Development of a Teaching and Learning Philosophy, Strategic tools for Quality Culture, Principles of Good Scientific Practice or Development of a Research Strategy for example. The trainings have updated teaching staff's skills, attitudes and approaches in light of the development of new teaching techniques, new circumstances and new educational research. They have enabled teaching staff to apply changes made to curricula or other aspects of teaching practice and VGU to develop and apply new strategies concerning supporting teaching staff to improve other aspects of teaching practice and help weaker teaching staff to become more effective. Soft skills are a combination of people skills, social skills, and communication skills in addition to the development of personality traits, attitudes, and emotional intelligence. These skills enable students to navigate their study environment, work well with others, and achieve their goals with complementing technical and cognitive skills. Whilst the main focus of lectures is to develop the knowledge and skills of the students in technical areas and to develop their cognitive capacity, soft skills are also important for the above reasons. They also play an important role in helping teaching staff communicate their knowledge and understanding effectively to students. Therefore, the HR department organized training sessions on soft skills for both administrative and teaching staff yearly, e.g. course on Working Together Across Cultures (2 days in 2018 with approx. 100 participants) and course on Change Management (2 days in 2018 with approx. 100 participants). No such training was organized in 2020 and 2021 due to the pandemic. Faculty, RMD

and IRTTC also play a key role in developing professional and teaching skills by activities such as conferences, workshops, seminars, training on subject matters, individual or collaborative research on a topic of professional interest and technology transfer. These academic events are the most important tools to update teaching staff's knowledge of subjects in light of recent advances in the area and to exchange information and expertise among teaching staff, academics and industrialists.

5.1.1 Computer Science (B.Sc.)

From 2013 to 2020, there have been three Associate Professors, two Senior Lecturers, three Lecturers, two RTAs, one Lab Engineer, and one assistant in the program working in the full-time mode to fulfil most of the teaching, research, and administrative tasks. The majors of the lecturers and lab engineers include a wide range of areas such as mathematics, software engineering, programming, databases, artificial intelligence, IoT, networking, security etc.. As lecturers in other programs of VGU, they got their Ph.D. degrees in different developed countries (US, France, Korea, Italy) and have built an internationally competitive profile. Many of the lecturers have decades of working experience in industry and/or academia. Additionally, about five to seven modules, such as Databases, Computer Networks, IT Security, Current topics in Computer Science, etc., are taught by experienced flying faculty professors from FRA-UAS. The information of the program, in general, is published at https://vgu.edu.vn/en/study- programs/bachelor/cs and of the teaching staff, in particular, at https://vgu.edu.vn/en/cs- teaching-faculty. The standard required workload depends on the academic position, which is regulated in the labour contract of each academic staff member. For lecturers, 40% of time is dedicated to teaching activities, 50% of time is dedicated to scientific research and technology transfer (S&T) activities, and 10% to other tasks. For RTAs, the proportion of tasks is 30%-40%-30%. Lecturers and lab engineers are assigned modules and lab/tutorial sessions by their expertise and wish to teach, guaranteeing that their Key Performance Indicators (KPIs) reflecting the quantity and quality, including contact and consult with students, of the tasks are achieved with sufficient time and facilities. About two months before an academic year starts, the AC uploads to the cloud storage the teaching plan including the assignment of the modules to lecturers and lab engineers. The needed adjunct lecturers are also stated therein and will be recruited soon. The Board of Deans of the FoE, the program and FoE assistants have the right to access the plan. The Vice Dean of Teaching will check the plan and raise possible issues for solving. About two months before a semester starts, the AC updates the teaching plan with more details. The Vice Dean will check again to guarantee that all issues are solved, and it is ready for the semester to come. For the long-term teaching plan, the Vice Dean of Teaching receives the Module Handbooks of all programs in the FoE and builds the table of teaching demands for the whole FoE. If more lecturers are needed, she/he will cooperate with the involved ACs to inform the recruitment demand to the

SQM department that will combine the lecturer demands of both faculties and propose the final lecturer recruitment plan to the Presidential Board. The recruitment process is regularly supervised in order to guarantee that it is efficiently run. In case a lecturer cannot be recruited on time, recruiting an adjunct lecturer for teaching a module in one semester is considered. The AC discusses with each lecturer the strategies and long-term plan of the program, the FoE and VGU, and the situational demand. The AC and each lecturer can contact other ACs in the FoE to find more modules to teach in case the modules of the CSE program do not provide enough teaching load for that lecturer. The second option is that the lecturer chooses to increase research to compensate to an insufficient teaching load.

CSE lecturers are also engaged in the first key research group (KRG) in Information Technology and Computer Science. The main objective is to establish a research group in these areas conducting applied research to solve actual problems jointly with partners from industry and academia. Developed solutions are not only academically sound, but also deliver innovation and immediate value to the project partners from industry. The following research directions have emerged as particularly interesting for potential partners: Data Science: Data Analytics; and Complex Event Processing; Artificial Intelligence (AI): Deep Learning; Supervised/Unsupervised Learning; Evolutionary Computing; Application Areas: Medical Image Processing, Cyber Security, Anomaly; and Detection, Network Surveillance; IoT: Security in Internet of Things (IoT); Blockchain in IoT; and Security in the Smart Grid. S&T activities are among of the main basic and mandatory tasks of all units or individuals working at VGU in order to improve the quality of education, training and scientific research, foster technology development, application and its transfer as well as apply the scientific research achievements and results to economic and social development of the local area and in the region.

5.1.2 Mechanical Engineering (B.Sc.)

At the MEN program, there are three senior lecturers, three lecturers, one senior RTA, three lab engineers, and one assistant, who are working in the full-time mode to fulfil most of the teaching, research, and administrative tasks. The majors of the senior lecturers, lecturers and lab engineers include a wide range of areas such as mechanical engineering design, mechanics, fluid mechanics, materials sciences, engineering design, automation technology, manufacturing, energy. As lecturers in other programs of VGU, they got Ph.D. degrees in different developed countries and have built an internationally competitive profile. Three of the lecturers in the program are German, UK, or Australian citizens, respectively. Many of the lecturers have decades of working experience in industry and/or academics. In addition, teaching staff for the MEN program also consists of professors/lecturers from other programs: Electrical and Computer Engineering (ECE), CSE, Civil Engineering (BCE), BIS, Computational Engineering (COM), GPEM, Mechatronics and Sensor Systems Technology (MST),

and Water Technology, Reuse and Management (WTE). Especially, there are ten modules including Mechanical Engineering Design 1+2, Thermodynamics, Heat and Mass Transfer, Process Thermodynamics, Finite Element Method, Virtual Product Modelling and Visualization, Mechatronics Systems, Life Cycle Assessment of Energy Systems, Apparatus Engineering and Renewable Energy Systems that are taught by experienced flying faculty professors from RUB and OVGU in Germany. The information of the program, in general, is published at https://vgu.edu.vn/study-programs/bachelor/me and about teaching staff, in particular, at https://vgu.edu.vn/me-teaching-faculty .

5.1.3 Business Information Systems (M.Sc.)

The current BIS curriculum is designed into five semesters. Courses are offered in the first four semesters, whereas the fifth semester is reserved for doing the master thesis only. Thus, lecturers will be needed for instructing the students during the courses in two academic years. At the end, there should be a master thesis seminar in which students present their topics and results. Here, normally two supervisors, one from VGU and one from the partner university, will take care of one master thesis. To achieve this the programme strives to hire a cohort of teaching staff to provide the students with both a theoretical and practical grounding across a range of relevant topics. Therefore our current teaching cohort ranges from lecturers with a strong research background on the one hand to lecturers having a strong business background on the other hand. As technology is also playing a more important role in business the programme is also focusing more on incorporating technological modules. In addition, all of the programme's lecturers have international experience with a number coming from foreign countries with a particular emphasis on German lecturers both on the ground and flying faculty. With the interdisciplinary courses BIS is focusing on expanding its cohort of lecturers in addition to providing them with the necessary development to remain current and be able to operate effectively with face-to-face, blended, and online classes. The full-time teaching staff at VGU consists of two lecturers at the moment. Visiting lecturers come mostly from the University of Technology Ho Chi Minh City (Bach Khoa University). The number of Flying Professors from German partner universities is ensured in the coming years through a Double Degree Agreement with Heilbronn University of Applied Sciences, from which at least three professors will offer courses for BIS students. Also, newly integrated courses can be provided by VGU lecturers of other study programs within the FoE, such as the case of IT Security. One of the biggest challenges will be the financing model for the Flying Faculty, in case the German professors need to fly over to Vietnam to teach a class. However, with the increasing percentage of online teaching and learning modus, BIS could overcome this trouble. The BIS staff information is published on https://vgu.edu.vn/bis-teaching-faculty.

5.1.4 Production Engineering and Management (M.Sc.)

At the PEM program, there are three lecturers, three lab engineers, and one assistant, who are working in the full-time mode to fulfil most of the teaching, research, and administrative tasks. Lecturers in other programs of VGU, who achieved Ph.D. degrees and have built an internationally competitive profile, also teach for PEM. The GPEM staff information is published on https://vgu.edu.vn/gpem-teaching-faculty.

5.1.5 Master of Business Administration (MBA)

The MBA is a postgraduate program with two majors that prepares participants for leadership and management roles in business: Major 1 focuses on Small and Medium Enterprises (SMEs) and Major 2 focuses on Enterprise Governance.

The goal of the MBA Program is to provide the students with the knowledge and skills to become competent business leaders and managers. Major 1 focuses on developing the skills to lead and manage SMEs in an international environment. It also has a substantial research component where students can apply their knowledge to SMEs in a "real world" situation. Major 2 is a generalist management program where students develop their knowledge and skills across a range of business-related disciplines to develop their leadership and management skills. The study program provides the students with the specific ability to work effectively in a cross-cultural business environment. An MBA is a graduate degree that provides theoretical and practical training for business managers, designed to help graduates gain a better understanding of general business management functions. A major issue in Vietnam at the moment is the "skills gap" where university graduates don't have the necessary skills to function effectively in the workplace. Therefore, in light of the above, the VGU MBA aims to provide both a theoretical and practical grounding in all relevant aspects of business management to ensure that its students graduate with the necessary skills, knowledge, and understanding to become effective business leaders and/or managers. To achieve this the programme strives to hire a cohort of teaching staff to provide the students with both a theoretical and practical grounding across a range of relevant topics. Therefore the MBAs current teaching cohort ranges from lecturers with a strong research background on the one hand to lecturers having a strong business background on the other hand. As technology is also playing a more important role in business the programme is also focusing more on incorporating technological modules into the program. In addition, all of the lecturers have had international experience with a number coming from foreign countries with a particular emphasis on German lecturers both on the ground and flying faculty. With the two majors the MBA programme is focusing on expanding the cohort of lecturers in addition to providing them with the necessary development to remain current and be able to operate effectively with face-to-face, blended, and online classes. The MBA staff information is published on

https://vgu.edu.vn/septmba-teaching-faculty. The teaching staff presently includes two VGU staff, one Flying Faculty from Germany and six Adjunct Lecturers. The full-time teaching staff at VGU consists of two lecturers at the moment. The MBA program is supported by a faculty assistant who provides administrative support to the program. With regards to the recruitment of lecturers the success rate is not at a desirable level with only one faculty member teaching into the MBA program. However, the Director of IRTTC and the MBA AC also teach in the MBA program and bring with them a wealth of experience in regard to the practical aspects of running and or managing a business. The Adjunct Lecturers are all highly qualified and many also have extensive industry experience. Whilst it would be of benefit to have more VGU faculty involved in the MBA program. The VGU ensures that the students are learning from people with practical expertise in industry. The Vietnamese economy is suffering because of a lack of work ready graduates entering the job market and the VGU MBA needs to ensure that their graduates are capable leaders and managers of the future. The balance between academic and industry experience is monitored to ensure that the integrity of the MBA is not compromised in either direction. The FoEM, including the MBA program, in conjunction with the RMD and the IRTTC play a key role in developing professional and teaching skills through activities like conferences, workshops, seminars, training on subject matters, individual or collaborative research on a topic of professional interest and/or technology transfer. Such academic events are the most important tools to update teaching staff's knowledge of subjects in light of recent advances in the area and to exchange information and expertise among teaching staff, academics and industrialists.

5.2 Assessment

5.2.1 Aspects that apply to all courses of study

VGU pursues a quality management that aims to ensure and guarantee all aspects of quality. The accompanying systematic monitoring from goal setting and goal achievement deals with the statistical evaluation of data in order to integrate new content development into the study programmes, to secure the material equipment of the university and to meet the teaching staff in all didactic requirements.

The implementation of these quality goals consists of the selection of professors and university lecturers in accordance with the Higher Education Act, a structured hiring process for external lecturers, and the comprehensive evaluation of university studies by students and graduates. The evaluation system therefore promotes the continuous improvement of curriculum development, the qualification of teaching staff. Against this background, all modules (lectures, seminars, etc.) are evaluated in different time sequences. A graduate survey has taken place and is also planned for the new degree programmes.

The relationship between lecturers and students is characterized by mutual respect and trust; a basis that enables constructive discussions. From the point of view of the expert group, adequate quality assurance measures have been defined and are planned.

5.2.2 Computer Science (B.Sc.)

VGU attaches great importance to the further qualification of its teaching staff. Newly appointed professors receive a comprehensive range of didactic training. A positive aspect is that this advice is also available to adjunct professors. When selecting them, attention is paid to ensuring that they are suitably qualified. The measures for personnel development are considered appropriate by the review panel, as they include relevant and meaningful continuing education offerings for the improvement of teaching. In the discussion with the program managers, the review panel was able to determine that there is obviously good contact between teachers and students, which the students confirmed once again. They appreciate the very good personal support from the lecturers. The study program "Computer Science" (B.Sc.) is essentially characterized by its outstanding teaching staff and their excellent ability to integrate artistic networks into the study program specifically and precisely.

5.2.3 Mechanical Engineering (B.Sc.)

MEN is teached by a very well structured and experienced teaching staff. The teachers have at least the phD degree and many of them also have long time industrial experience. The combination is very important especially for an engineering study. The lectures were given in presence but also new digital and interactive learning methods were used successfully. The new campus will offer therefore additional space and new technologies.

For the future it will be important to setup a strategy for reducing the flying faculty part and to bring students closer to materials, machines and parts in a higher percentage of the study. Also, a strategy to increase the number of female lecturers is warmly welcome.

The structure of lecturers in the future should balance the needed topics for basic modules in engineering but also should consider the upcoming strategy for a specific research profile of HEI. One strategy might be to strengthen topics in materials, design and production and focus on topics like digitalization and flexible automation. Guest lectures from industry as well as workshops with scientists from other universities could enrich the teaching composition.

Possible instruments like guest professorships from other universities or honorary professors from industry could strengthen the teaching composition additionally.

5.2.4 Business Information Systems (M.Sc.)

Seven of the 21 modules offered by German lecturers, nine by two qualified local lecturers, 3 modules not yet assigned (tba). With reference to the aforementioned recommendation of specific elective modules for specialization in application-oriented or research-oriented study careers, the capacities and competencies of the teaching staff should be assigned to these alternative focus areas to enable sufficient resources in the long term. In addition, existing experience in university digitization, particularly in courses taught by faculty from German partner universities, should be used to support a train-the-trainer approach (online distance learning, peer2peer teaching, etc.) to train young faculty from Vietnam in didactics, digital teaching, and research skills. This could complement the local CEHE initiative. In addition, the pandemic shift to e-learning should be taken up to develop a digitization strategy that introduces standard blended learning/flipped classroom arrangements to reduce costs for flying faculty members.

VGU should therefore make the long-term capacities and competencies of teaching staff more transparent and allocate them to the different foci of application orientation and research orientation. VGU could introduce a train-the-trainer model for competency development of local faculty based on online distance learning and peer2peer teaching tandems. The dependence on German lecturers should be gradually reduced in the coming years based on the proposed distance competence development.

5.2.5 Production Engineering and Management (M.Sc.)

The teaching staff is well qualified to conduct the teaching in their specific fields. Based on the student evaluations and feedback the teaching is highly appreciated by students.

However, in some modules the PEM program relies on flying faculty members (e.g. module Logistics and SCM). It would be helpful if the VGU is going to develop an own teaching expertise to reduce the dependability from flying faculty members.

Furthermore, the PEM program is characterized by a high degree of interdisciplinarity and an integration of engineering and business topics. Therefore, a full time academic with a strong background in the field of industrial engineering (or related field) would be an asset for the PEM program at VGU.

Due to the fact that the PEM program uses blended learning it seems helpful to establish a guideline and/or an assistance for the teaching staff for the application of blended learning tools.

5.2.6 Master of Business Administration (MBA)

VGU follows a defined and transparent procedure for recruiting personnel. Regarding the recruitment of faculty for the MBA program, VGU does not yet see the success rate at a desirable

level. Indeed, it is unsatisfactory that there is only one VGU faculty member teaching in the MBA program. However, recruitment follows defined criteria and distinguishes between different types of lecturers in accordance with international standards (e.g., at least three publications and a certain level of teaching experience are required for senior lecturers). Staffing could be increased here in the future.

During the digital inspection, it became clear that the scarce financial resources of VGU significantly limit the budget available for lecturers. This is also the reason for the limited range of optional modules. However, the given portfolio of teaching staff in the MBA program seems to meet the minimum requirements for professional and didactic competence necessary for the profile of a university of applied sciences. The range of teaching staff also appears to be appropriate to the requirements of the local labor market.

The increasing popularity of digital teaching formats and blended learning could offer VGU the opportunity to expand the number of professors as adjunct instructors with moderate additional teaching costs.

5.3 Conclusion

The criterion is **fulfilled**.

6 ESG Standard 1.6: Learning resources and student support and Program Environment and Resources

Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

6.1 Implementation

Facilities

The VGU hat moved to the new “Binh Duong campus” in September 2022. Yet The VGU does not only maintain the school operation on the existing campus, but also provides storage for new equipment for the Ben Cat campus on the scarce space on the existing campus in Thu Dau Mot City.

The new campus will provide facilities way ahead of the existing ones in terms of quantity and quality and sufficient for a multiple amount of students and staff as currently registered or employed. VGU will have space for all kind of additional educational activities and cooperations and might be challenged establishing all the promising partnerships and handling

so much available space. This self-assessment in this transition phase takes place in a situation, where the operation of the existing facilities is well established with known procedures, but with low demand to improve these, since everybody is just waiting to move to the new facilities. The new facilities will offer many new options and there are many ideas how to attract additional students and interested partners. While settling onto the new campus, the Facility Management (FM) team will be challenged with providing the most essential resources and to ensure that the technical infrastructure for water-, electricity-supply and air-conditioning becomes operational, rooms are equipped and students, lecturers and staff find their new locations. Then, the FM will supervise the suppliers for outsourced services, like catering, laundry, security, cleaning, landscaping, etc. and support the external stakeholders and cooperation partners while they are installing themselves. At the given time, the assessment may more focus on the possibilities rather than actual results. Infrastructure and equipment will be far ahead of the one on the current campus. The willingness of involved stakeholders to clarify procedures and roles and responsibilities has to be developed more as a fundamental step towards creating a reliable base for the operation of the new facilities. Future assessments will become abler to evaluate and hence develop approaches to overcome weaknesses.

In Thu Dau Mot City (Binh Duong province), VGU has rented facilities on the campus of the Eastern International University (EIU) and, although running short of space, the utilization is well established. Lecturers have access to classrooms, equipped with the required audio/visual installations and get the FMs support, if they or the students need additional equipment. The laboratories are equipped according to the requirements and accessible for lecturers and students. Due to the delay of the implementation of the new campus facilities, additional equipment, which was ordered to be installed in the new facilities, had to be temporary installed or stored in the current laboratories, where it leads to jammed working space and affects the operation of the already installed equipment. For catering the students have access to EIU's canteen. They are running various extra-curriculum activities on the campus of which the cafeteria is the most visible. It is prominently located on a terrace inside of the premises and contributes well to a lively atmosphere. Dormitories are closely located in an area with apartments, cafes, food stalls and shops offering basic items. For students without own vehicles, VGU offers a transfer shuttle.

Administration staff works in shared offices separated according to their departments. There is space for preparing and having lunch brought from outside. Administration staff and lecturers have access to a shuttle bus, which connects VGUs campus with Saigon's city centre. Since VGU operates the campus in rented facilities, the responsibility for taking care of technical infrastructure and building maintenance lies with EIU. EIUs facility management is committed to a customer friendly service and usually settles issues which were brought up

by VGU FM within an acceptable time frame. VGUs City campus offers centrally located, easily available campus facilities in HCMC. The facilities are equipment and maintained to fulfil the operational requirements but are lacking the attention they deserve to mirror the targeted excellence of education VGU stands for. Reasons for the negligence may be the plans to move also the Hoang Dieu campus (City campus) to a new site in HCMC. The procurement and preparation of a new site is delayed due to the main focus on moving to the new campus in Ben Cat, budget constraints and the delays caused by the pandemic situation.

The finishing of VGUs new campus in Ben Cat (also Binh Duong province) is heavily delayed due to implementation shortcomings. The MoET with its Project Management Unit (PMU) could extend the implementation time frame until end of May 2021. Since then PMU tried half-hearted to rectify the detectable, severe building defects, but even now, there are still too many buildings defects to be rectified. Only after the approval and certification of the facilities by the concerned state authorise, MoET/PMU may accept the work and take the facilities over from the contractors. After having clarified responsibilities with MoET/PMU and received all required certification, VGU may take over the new campus and move-in. With the new campus, VGU will have access to facilities providing all amenities which can be expected on a campus of an international level of quality. Lecturers will have classrooms with up-do-date presentation and communication facilities to deliver an up-to-date, interactive teaching. For each academic subjects, specified laboratories will be available and filled with state-of-the-art equipment. Lecturers and administration staff will have sufficient offices and meeting rooms, which provide ideal working conditions for everybody. The library will offer a lively atmosphere with plenty of differently designed spaces for self-study and group work. A Wireless Internet (WiFi) network will ensure connectivity at all times all over the campus. In order to balance their life and ensure a healthy development, students will get comfortable living conditions and recreation facilities.

Dormitories will provide three bed rooms for Bachelor and two bed rooms for Master students and one bed rooms for students working on their Ph.D. The dormitories will provide several kitchens to prepare food and well-ventilated living areas on each level for dining, gatherings and common activities. On the ground floor of the dormitory buildings will be in- and outdoor meeting areas and various small shops supplying daily required goods. Personal laundry may be done by the students in one of the laundry rooms on each floor and a professional laundry service will operate a centralized laundry on the campus for all other textile items. The flying faculty will have differently sized accommodation opportunities in standalone or duplex houses or apartments, in a village style environment, directly attached to the campus. A service supplier will provide a hotel level, full room service. Several food outlets distributed over the campus will provide all time healthy and balanced food for staff, students and visitors. The

food court next to the dormitories will operate on three floors several kitchens for a wide range of Vietnamese, international, veg and non-veg food items. The cafeteria in the administration building has a fully equipped kitchen and will provide dishes, snacks and bakery mostly to staff, students and visitors. Several coffee outlets and snack bars will be operated all over the campus based on demand and actual activities. The still unused green areas might be utilized to home farm fresh vegetables and fruits. For a healthy, balanced lifestyle, the athletic centre will offer ample of space with indoor and outdoor playgrounds for tennis, badminton, squash, volley – and basketball and a football field. A swimming pool will provide more than just another area for exercising, but a place to cool down during the hottest time of the day or to spend leisure time with friends in the evenings and during weekends.

Administrative student support

The ASA department is the main contact point for the students when it comes to student support. Academic and Student Affairs at VGU include subunits working on Admission & Enrolment, Examination, International Office, Scholarships, Student Counselling & Services and Student Activities. As soon as the applicants have submitted their application in the online application system, the ASA team will take over from the MSR team as the primary supporting and communication point for all future and – later – current students. Throughout their student lifecycle at VGU, ASA will accompany the students on their journey when it comes to general questions regarding academic and student affairs. During the entire admission process until the applicants will finally become VGU students, the ASA team guides them through this process by providing guidelines, checking their applications, giving feedback when documents are missing and finally providing them their student cards. Furthermore, the ASA team organizes the dormitories and makes sure that every student will get proper accommodation if wanted. In this regard, one of the strong points is the strong individual support provided; whereas the entire application and enrolment process could be structured in a more cohesive flow. The approach of the leadership at VGU has always been to offer as many different ways to join VGU as possible. Thus, different than many German universities, VGU opens a lot of different modes and rounds to get enrolled, which can be rather difficult to understand from the outside. At the start of every student´s university life, ASA will organize a welcome event. For all the Bachelor's programs, this is an entire week of activities, starting with a celebratory welcome by the president of the VGU, to a general introduction to the university and to their respective program, but also including games and activities with older students to make the arrival and bonding easier for them. For the Master's programs, the introductions are coordinated centrally by the ASA department, but then individually conducted by the respective programs depending on their individual schedule. The feedback from the students for these introductions has been very positive over the years and is regarded as absolutely necessary to familiarize the new students with the

university and to provide them with a good start into their studies. During their studies, the ASA department provides the students with all kinds of official documents. Students can pick them up during office hours. These range from transfer requests to official documentation that they are studying with VGU. So far, these templates have no central download section on the website or a physical place where they could be picked up by the students. On the new campus it is planned to have such kind of space where all the templates for different requests from students are provided.

When it comes to Student Counselling, the first contact point are the ACs and Assistants in the respective programs. Whenever the students have questions regarding general regulations or processes, they are welcome at the ASA department. All officers of the department can be contacted during the daily office hours between 9 to 11 am and 2 to 4 pm and via a hotline. On the new campus it is planned to have a designated area, as a one-stop-point, where the students with questions will be guided to the responsible person within the ASA department or other relevant departments (f.e. FAD when it comes to payable fees). As a special offer based on the experiences in the last years, the ASA department also provides a psychological support service with the help of an external counsellor.

Students at VGU have the possibility to join one of the currently 17 Student Clubs, ranging from Academic Clubs (like the German Language Club or the Robotics Club) to Sport Clubs (f.e. Ultimate Frisbee) to Recreational Clubs (f.e. Music Club). They are all an important asset to student life at VGU as students are encouraged to join the student activities from day one. The variety of student activities is definitely one of the strengths at VGU and is helping the students to find opportunities to balance their demanding studies. VGU is proud to have a very active and engaged student community. The ASA team is responsible to organize these clubs and is closely working together with the VGU Student Association (VSA) in this field. The VSA acts in general as a bridge between the student body and lecturers & administration.

Within the ASA department life-long learning and constant development of the competencies is supported by the head/deputy heads. All staff members are always encouraged to take part in different internal workshops (f.e. many employees participated in quality assurance workshops). nternational mobility and, especially, using the bi-national nature of VGU to the utmost advantage of the students, is a core element of the institutional support at VGU. The university offers broad opportunities for a semester abroad, both within the frame of double degree collaborations in Germany, but also with other German universities and universities in Southeast Asia. To expand the exchange opportunities, with the focus of finding the most fitting offers for the different students, VGU is constantly looking for new exchange partners – at least five per year. Many of the study abroad places come with scholarship opportunities; in the case of the exchanges with German partners, usually funded by DAAD (for up to 20% of the students). The ACs in the study programs counsel the students

on the best fit for their personal academic development, often in the scope of the program partners, but also beyond that. As part of the ASA department, VGU employs an international officer and a manager of the International Office, the latter being an experienced expert from Germany, who also advises students on exchange opportunities, including funding issues. At the new campus, this will be part of the Student Service Center with a resource library and in-person counselling at the usual office hours. At the moment, this service is limited to extensive contact possibilities via e-mail and telephone. The staff also provides pre-departure orientation events (currently only via online video conference tools) and help with visa applications. The support for the exchange students from VGU at the partner universities, including help with accommodation and in emergency situations, is provided by the international offices of the partner institutions, while the VGU staff is responsible for the support for incoming exchange students from the partner universities.

Student research

With the aim of becoming a research-oriented university, not only academic staff but also students at the VGU are highly encouraged to do research. There is a variety of activities that students can join to satisfy their research passion and gradually step into the scientific community. For instance, the annual research competitions among universities in Vietnam and overseas spanning different disciplines from Engineering (Honda EMC, Hackathon,…) to Economic and Management (CFA Challenge, Entrepreneurship…). Besides, in the era of start-up blooming, a series of events are born to encourage and support students to materialize and commercialize their start-up innovation ideas. Last but not least, VGU itself also provides a platform for student research activities through VGUs Student Association (with different clubs) and the Research Fund for Student Research proposals. Through student research projects, the students have great opportunity to learn and reinforce both scientific knowledge and soft skills (teamwork, communication, project management, financial and human resource management, negotiation, presentation, proposal writing). The results of the projects later can be either presented in the Conferences or showcased in the Student prototype exhibitions.

Library

VGUs library is on the way of building a state-of-the-art library to be an academic hub of rich information resources, user-centred services and modern infrastructure to tailor diverse needs of its users in learning, teaching and research. The overarching goal is not only to support the sustainable development of VGU, but also to serve as a model for other Vietnamese higher education institutions. Due to this goal, the library has been making great efforts to systematically building such a modern library. Its construction floor area is around 8,000 square meters with 4,5 floors to provide its users around 1,500 seats. As to serve its international communities, the library architecture has followed the European and Western

standards in terms of building design, interior design and construction quality. The library is well equipped with advanced technologies and ground-breaking equipment as RFID technologies for management and security control, smart copiers and smart LCD screens to support group work or individual study. The library is designed to be flexible to meet various demands and functional purposes, from quiet research space to open space for discussion, reading theatre for big events and learning common inspiration, multimedia space and makerspace for language learning and creativity. Besides, there are high quality furniture with aesthetic appeal and harmony aligned with the general library décor to enable flexibility and multifunction's for studying and researching. Students are not only able to find an academic and approachable environment in the library but also a cosy zone as their home. Only from the library, students will have a variety of choice for effective study at any library corners, or student lounge and bookstore/ UniShop for their needed services, or impressive café from the ground or any library floors, even special shows from a huge reading theatre occasionally. Currently, we have collections of specialized materials including well over 5,300 printed books and over 15,000 ebooks that are textbooks and reference books to tailor the various needs of all VGU disciplines. Besides, over 112,000 academic journals and other printed and electronic newspapers, magazines, standards and conference proceedings additionally enlarge the reference coverage. CSE accounts for over 15,000 materials (printed books, ebooks, ejournals) whereas MEN, BIS, MBA and PEM make up material portions of 1,685, 4,658, 1,443 and 1,785 respectively in the total list. It can be explained that the materials of Engineering study programs are used interchangeably as the course units are also interdisciplinary. The Economic program MBA and also BIS take benefits of the materials from Bachelor Economic study programs and some in Engineering units. In addition to the mentioned resources, other e-collections are also extensive and diverse to address various demands from academic staff and students of the five study programs. There are subject-specific and multidisciplinary databases (including journals and ebooks), as Science Direct, Proquest, EBSCO, SpringerLink, IEEE, Scopus, Web of Science, IGPublishing, etc. that can be accessed from anywhere and anytime, via the library website (hΣps://library.vgu.edu.vn/). The crucial open access databases, journals, theses and ebooks are also well-collected and disseminated as DOAJ, SpringOpen, Science Direct Open, Sage Open, IMF, World Bank, Research4Life, Open Global – National and Institutional Repositories and Dissertation systems, etc. The library also endeavours to cooperate with other libraries and has Interlibrary Services with the Central Library of Vietnam National University (VNU) HCMC, the National Agency of Science and Technology Information, libraries of German university partners (RUB, FRA-UAS), the International University (VNU), the Fulbright University in HCMC and other academic libraries in the VILASAL Library Association to strengthen VGUs licensed and open access resources as well as professional advancement.

More importantly, innovative and in-demand services are also taken much into account. Information skills training at all levels are conducted frequently to improve students' capacities in research and information literacy for their current study as well as life-long learning. iTutorials (video guides and interactive contents for library services, facilities and resources) are also thoroughly developed to support students to learn skills by themselves as citation/referencing skills, searching strategies, information evaluation, how-to-use library services, facilities and systems. In addition, EndNote licensed software, Turnitin services another free software (such as Zotero) are introduced to support the learning and research activities. Information advisory service additionally shows its vital role in providing support and consultancy for any inquiries from VGUers. To have the resources in one place for convenient browsing, Research Subject Guide (hΣps://libguide.vgu.edu.vn/) is developed for CSE, MEN, BIS, MBA, PEM and other disciplines as well. To inspire reading culture among VGU members, the library regularly organizes events such as Book Fairs, Book cultural event, publishing and research skills workshops, Book Exchange Corner, Book Club and book donation for knowledge sharing. Especially, to make the library services, resources and facilities known by VGUers, the library has launched a number of social media to stay connected with users as Facebook, Instagram, and YouTube. To serve a research-based university as VGU, the library is making great efforts to build a comprehensive Research Support Service portfolio that is very essential and relevant to the university. Furthermore, the VGU has invested in a top cutting-edge library management platform to reinforce the integration with the ICMS and connection with libraries globally. WorldShare Management Services and WorldCat Resource Discovery are obtained to bring VGUs library to the globe. It is a great opportunity for VGU to establish InterLibrary Corporation with any libraries in Vietnam, Germany or in the world. It can be concluded that VGU is able to contribute to the knowledge sharing globally and make it well-known by the high quality international educational standards and research, and outstanding services and infrastructure.

Last but not least, the library staff is highly qualified from their previous study, professional field trips in Germany and other countries as well as new library development training by Australian trainers. Ongoing professional trainings and workshops are more open and acquired via online mode, free of charge, especially in this pandemic time in order to enhance knowledge, competence and capacities to meet the new requirements in the instantly changing technological age. Well-trained staff with good qualities are confident to successfully support learning, teaching and especially research activities, and to ensure quality assurance to meet not only German standards but other international standards as well. IT service

The IT department has three major areas of concern, which include governance of the VGUs technological systems, maintenance of the infrastructure, and functionality of the systems

overall. Fourteen IT employees were planned for the period 2019 to 2022. But only six employees are available to the IT department. This understaffed situation has changed now, because IT is in a recruiting process.

The following sections give an impression of the responsibilities, duties, and tasks of the VGUs IT department with regard to students' support. The IT department plays an integral role within the organization. It sets up and maintains computer infrastructure, performs software updates, oversees the running systems and data storages, assists new users with computers and software issues, etc.. High-speed wireless networks are accessible in buildings and public locations around all campuses, it is available in all classrooms, lab rooms, student apartments and residence halls, in recreational facilities, such as the new sport hall, the food court and outdoor. When VGU users need access to computer systems or require troubleshooting assistance, they typically get referred to the IT department. The staff are especially handy at fixing problems related to hardware and software issues, though their role within the university does not end there. VGU uses a free but limited open source helpdesk application. If students have questions, service requests, or are experiencing technology issues, they can submit a help ticket and one of the support agents will take ownership of the request until it is resolved. Communication is also provided by the small number of staff. There are several instances where the IT team helps facilitate successful communication between all parties involved. Meetings, lectures and interviews via web technology are becoming increasingly necessary. The IT department is not responsible for VGUs websites. Websites are owned by the MSR department and the applications are developed, run, and maintained by an external provider. The role of IT department is limited to providing the server resources and the interfaces to the applications of the websites. All other tasks and duties are carried out by MSR. Members of the IT team administer around 80 system and business applications that support administration and teaching function better. For students, VGUs IT provides authentication, security and system services enhancing student's learning experience. VGU received in 2020 a brand-new data centre financed by the World Bank. The IT department implemented the first six months in 2021 system applications and most of the user applications to the new data centre with modern technology and high performance. There are certain weaknesses and risks which should be mentioned here: IT department is fairly understaffed and this small team (6 instead of 10) is working permanently at their capacity limit. It is foreseeable that the university may run into major IT support and operation problems at the new campus. The websites were developed in 2016 and no longer correspond to today's and modern website standards. An internal VGU analysis in 2020 showed that the programs for the websites cannot be improved to bring it up to date with today's technical standards. In dealing with the websites it has been shown to this day that the symptoms are treated but not the disease itself. In May 2020, IT developed and presented the strategic paper „WebSites

Governance“ as a starting point for websites change and improvement. Until today no further actions have been taken by the owner of the websites. The technical development in digitization is advancing exponentially. The whole economy and society are affected and primarily also the higher education sector. The government of Vietnam formulated in 2019 a digital strategy 2025/2030, the MoET ordered further implementation measures for the country's universities in 2020. The planning and implementation of future and important topics of digital transformation at VGU in 2021 has been stopped because the internal resources are no longer available. If the improvement should be made. This applies to the presentation, the architecture, and the content in particular, which should be designed and implemented by professional marketing and web experts. There are many approaches to drive changes and improvements with concrete measures at the VGU and to implement them within a defined time frame, especially in these years of digital transformation. The last of many points should be mentioned, that cost-saving measures and unrealistic low budgets mean that an IT department with an understaffed workforce, and a lack of strategic digital competence can only work reactively.

Training events and support services from CEHE

With the objective of maintaining and promoting exemplary standards in higher-education leadership and management, teaching and learning, and academic research, VGU is currently in the process of formally establishing a Centre for Excellence in Higher Education (CEHE),that it is hoped (subject to a final decision by the University Council, expected in August 2021) will become fully operational next academic year (2021-2022).

Preliminary steps have already been taken, to the task of establishing a comprehensive program of training events and support services for VGU staff and students, that has already included extensive training and (technical) support in Online Teaching and Assessment.

6.1.1 Computer Science (B.Sc.)

There are three laboratories in three different rooms, which are equipped with new technology, dual boot (Windows and Unix operating systems) and software that fulfil all teaching and studying requirements for up to 100 students of the CSE study program. The primary purpose of CSEs computer labs is for teaching, study, examination and class assignments. These labs have been used since 2015 until present:
The General laboratory has computers with well installed software which support the modules introduction to programming, Distributed system, Projects, Programming exercises, Databases etc. The Real Time system laboratory is mostly used for the teaching modules Real-time system, Operating systems, Studium General, CSE current topics etc.; this lab has also installed the software that meets the requirements of these modules. The Computer Networking laboratory has modified computers with more ethernet cards / ethernet ports (up to 2

- 5 ethernet ports) which are suitable for modules related to networking such as: Computer networks, IT Security, CSE current topics, introduction to programming etc.; moreover, there are programs installed for network simulation and networking devices such as: non-programming switches and programmable switch/router, firewall, ethernet tools that support students in hand-on activities, lab exercises.

And as planned for the new campus, CSE will have two more computer laboratory rooms which are a Computer Science laboratory with 30 computers and an Open laboratory. So the laboratory infrastructure quite meets the demands of CSE students. Computer Science laboratory (CS Lab): This lab has been designed for lecturers and students in studying and practicing Computer Science. In addition, this lab could be used for either examinations, thesis preparation or project assignments. The open lab room has been designed for lecturers and students in studying, practicing, team working and doing student projects. In addition, students can be granted administrative rights to access to computers, servers and networking devices for the purpose of study and student research in Computer Science. In 2020, CSE established an open lab at the current campus which is used for student research, group works and thesis work. Moreover, the open lab also helps students to develop soft skills such as team work, proactive learning, problem solving. In the 2020-2021 academic year, students have done some research projects related to IoT, Computer Vision and AI in this open lab. An attachment of this self-assessment report gives a full list of equipment types and quantities in the labs. CSE collaborates with the IRTTC to organize events, workshops and company tours for CSE students in order to connect students with the companies.

CSE also collaborates with the IRTTC to update the information of companies to CSE students, for example recruitment information, virtual tach talk, seminar, etc.. The programme further shares opportunities and seminars from partner companies with CSE staff and students. The program assistant supports in many organizational issues from campus arrival to finding accommodation near to campus or in HCMC, to visa applications, to timetable rescheduling, to email communications, to any announcement to students, to teaching material preparation, among others. The lecturers have individually selected a fixed interval in the week to be ready in the office for student consultation regarding the taught modules and other related issues. Once a year, the AC organizes an Information day (for freshman), Casual meeting, Internship meeting and Thesis meeting in order to meet all students of each intake to listen to all of their problems, especially the teaching quality of the lecturers. The AC will try to solve the problems and discuss with the corresponding lecturers to improve. The Cooperation with FRA-UAS: Beside the flying faculties' teaching modules at VGU, every year DAAD grants approximately 14 scholarships to students to write their thesis in Frankfurt supervised by FRA-UAS professors. VGU exchange students can go to study at FRA-UAS, and vice versa.

The overall evaluation of the study organization of the CSE program from students is quite good, reflects the usefulness and value of CSEs program assistance and service including program academic assistant, lab assistance and AC. There are many strong points of the CSE program, but there are still some points for improvement: scheduling of academic events and more interesting academic activities (scientific seminar, current topics of computer science or invited industry talk, technical competition for students) shall be organized in the future.

6.1.2 Mechanical Engineering (B.Sc.)

In order to support teaching and research activities, the MEN program is equipped with five laboratories to support students and lecturers in learning and teaching activities.

Fabrication Laboratory (FabLab)

This lab is used to train students with basic internship. The basic internship serves to acquire practical experience in the basics of machining and processing of materials as well as the functional mounting of assemblies in industrial production. Under the guidance of a technical supervisor, the trainee should become familiar with various basic manufacturing processes and equipment. In addition to learning and basic internship support, this lab also supports students with possible experiments for graduation thesis and student research projects.

Machinery Laboratory

This laboratory is equipped with basic facilities in the field of machinery to support module/courses including 61MEN301: Measurement Technology with Practical Training,61MEN314: Basics of Fluid Machinery, 61MEN314: Fluid Energy Machines.

Fluid Mechanics Laboratory

This laboratory is equipped with modern facilities in the field of fluid mechanics to support module/courses including 61MEN301: Measurement Technology with Practical Training, 61MEN314: Basics of Fluid Machinery, and 61MEN210: Fluid Mechanics. In addition to teaching and learning, this lab also supports students with possible experiments for graduation thesis and student research project.

Thermodynamics Laboratory

This laboratory is equipped with modern facilities in the field of thermodynamics to support module/courses including 61MEN208: Thermodynamics and61MEN307: Process Thermodynamics. Besides, this lab also supports research activities or theses (B.Sc., M.Sc., and Ph.D.) and research.

Materials Engineering Laboratory

This laboratory is equipped with modern facilities in the field of materials testing to support module/courses including 61MEN108: Mechanics - Strength of Materials; MEN103, 61MEN109: Basics of Materials Technology 1 + 2, and 61MEN301: Measurement Technology with Practical Training. Also, facilities in the lab can be used to support the module of Additive Manufacturing as working on design of experiments for mechanical properties testing.

Smart Vehicles and Automation Laboratory

This laboratory is equipped with modern facilities in the field of materials testing to support module/courses including 61MEN305: Automation Technology and Robotics; GPE Project (GPE), 61MEN302: Basics of Automation and Manufacturing Theory; 61MEN207: Control Engineering and 61MEN319: Scientific Writing and Project and Thesis.

The MEN program is equipped with a variety of software that serve for student learning and research such as Siemens NX, Technorati, Ansys, Geomagic Design X, TIA Portal V16 and many other educational software. NX allows to design a virtual version of products as a reference for later manufacturing steps. Also, NX is used, among other tasks, for: Design (parametric and direct solid/surface modelling); Engineering analysis (static; dynamic; electromagnetic; thermal, using the finite element method; and fluid, using the finite volume method). Besides, Tecnomatix digital manufacturing software is used to simulate manufacturing processes and improve systems in the design phase.
Annually, the MEN program works with a variety of departments such as IRTTC and ASA to organize job career and other industrial talks to provide students with future job and internship positions. In addition, the program team also contacted industrial partners to introduce the MEN internship program to companies and ask companies to create some opportunities for a professional internship. The program team also organizes several factory visits per year to show real manufacturing and mechanical engineering design at companies. This also increases the chance for future internships.

Support with student research

Most lecturers who are teaching for the MEN program are working on research projects. MEN students can apply and join their lecturer's project to improve their expertise in the field of study. Also, the students are guided on how to write a proposal or technical paper and how to approach a research problem. By this way, a student learns how to take an approach and solve a technical problem, including how to write a concise technical report.

Teaching and learning conference

Once a year, the MEN program will organize a meeting with all students of each intake to listen of all of their problems, especially the teaching quality of the lecturers and teaching and learning facilities. At the meeting, all feedback and suggestions from students will be

taken note for further purpose. After the meeting, the MEN program will try to solve the problems and discuss with the corresponding lecturers to improve the quality of teaching and learning activities.

6.1.3 Business Information Systems (M.Sc.)

The BIS study program relies much on the support of IT functions and the IT department as well as digital services of the university. In the future, also the library services will much likely be digitalized and ebooks will replace traditional reading materials. For BIS, because the classrooms are located in the City campus in HCMC, the programme does not possess an own library but rather has to share the resources with the central VGU library in Binh Duong campus. Nevertheless, there is no single trouble until now related to the borrowing of books and materials such as master theses or research publications. The BIS programme does not possess or need computer labs like the colleagues in the CSE program do. Students all possess their own laptop and in all cases they are convenient working with their own laptops, conducting projects, creating software, or making presentations and other documents. They are professional IT personnel and mostly the courses focus on high level, post-graduate management tasks instead of merely programming activities. BIS does not support in terms of internships or jobs, because the majority of students is already at work and they are not interested in internships. However, the programme does support students to find internships and trainee positions in Germany. Job support is, similarly, not relevant due to the fact that the alumni are very independent and successful in finding appropriate new jobs. Recommendation letters are issued which are very much helpful for alumni who apply for a Ph.D. program in Germany or other Western countries.

General student support is ensured at VGU. Support from German flying faculty, however, sometimes experienced difficulty due to the geographical distance and time zone difference. Especially in the master thesis phase, regular contact must be maintained. Student consultation is offered on a continuous basis, meaning that students can ask about all administrative and academic issues at any time. Further support activities include the consultation about personal decisions such as which company to choose or which city in Germany to stay for an abroad endeavour. Thanks to the practical experience, both the AC and the lecturers of BIS can help students in these matters. BIS is a practice-oriented program. Students are current employees in companies, which leads to the nature that they are less interested in theoretical research. Through cooperation with the partner university in Heilbronn, students who are interested in research works can receive a scholarship for a stay of six months in the UnityLab which focuses on Virtual Reality research.

Moreover, the master theses of students are encouraged to be published as research papers at international conferences and journals in order to improve the research capability of the

university. This is especially the case of students and alumni who want to pursue a Ph.D. degree and a research career path.

6.1.4 Production Engineering and Management (M.Sc.)

PEM laboratories facilitate research, training, and collaboration on cutting-edge technology and good management practices for the manufacturing industry. PEM labs are equipped with modern machines, tools, types of equipment, and technology. There are seven specific laboratories at PEM to support students and lecturers in teaching and learning activities:

Machining Lab

This lab has been providing high precision manufacturing. The PEM machining lab consists of numerous state-of-the-art Computer Numerical Control CNC machining manufacturing centers made by some of the best CNC builders in the industry. PEM is able to manufacture complex products and other CNC machining projects for the medical, transportation, electric, aerospace, defense, and commercial industries, for custom prototype machining and so on. The machining lab is used for teaching production technology courses, students' research, and industry joint projects.

Product Design and Development Lab

Designing a product is a challenging task, as it centralizes requirements from every department of a company. PEM has invested in cutting-edge software to collaborate with industry to explore solutions toward the 4th industrial revolution in Vietnam. Specialized tools and software can be listed as follows:

The 3D Handheld Laser Scanner and Geomagic Design X software are used for doing reverse engineering in product design. The NX Computer Aided Design (CAD), Computer-Aided Manufacturing (CAM): NX allows for the design of a virtual product version as a reference for the later manufacturing process. THhe Tecnomatix - digital Manufacturing Simulation: Technomatix simulates manufacturing processes and improves systems in the design phase.

Teamcenter: Integrated Product Lifecycle Management (PLM): Team Center connects people, processes, and materials to collaborate in successful product launches. Besides serving for research activities, this lab is mainly used for courses related to product design and development, factory planning, production simulation, etc.

3D Printer Lab

3-D printing is a recent but rapidly expanding technology, known as additive manufacturing. It allows a rapid and fully automated design of plastic prototypes from a digital source with high precision and mechanical properties. The 3D Printer Lab at PEM includes rapid prototyping

machines both for teaching activities and industrial purposes. Plastic and metal parts can be free form fabricated as whatever design it is. Addictive manufacturing and product development courses use this lab for practical training and producing fast prototypes. This lab is also used for academic research.

Quality Control Metrology

Metrology equipment provides an economical way to measure samples/products with precision measuring instruments and advanced testing techniques. All metrology equipment at PEM is regularly calibrated according to the manufacturers' specifications. This lab supports quality management course, research, and thesis as well as provides industrial services.

Quality Control and Metallurgy

Metallurgy equipment is used for research in Materials Science. Existing machines and devices are used for specimen preparation in order to have optimum surface quality for later observations by optical microscope. This lab serves for research activities and industrial projects.

Lean lab

Lean lab includes a mini-factory model where students can practice all techniques and methodologies related to Lean management. This lab is used for teaching students and for industrial short course training.

Automation Technology Lab

The automation lab is equipped with different types of sensors, controllers, automatic switches, etc. Students can practice and do projects in it. It mainly is used for research, teaching, and learning purposes.

PEM students have access to use the labs under the supervision of lab engineers or lecturers. Courses at PEM normally integrate lab exercises to help students transfer theoretical knowledge to practical problems. Lab engineers always involve in instructing students to ensure safety in lab operating. After class time, if students want to have extra practice time, they have to register with the AC who will then assign lab engineers to supervises them. PEM ensures students can maximize lab utilization for their study and research activities. Undertaking an internship in real manufacturing environments is such an important way to start preparing students and taking the right steps towards their future careers. At PEM, students are required to undertake nine weeks of factory internship to get compulsory credits. The program always encourages students in looking for suitable internship positions by themselves. Besides, PEM also contacts industrial partners to inquire about their needs and available open positions for the students. The program acts as a bridge between companies and

students. During the time students do their internships at companies, PEMs AC cooperates closely with their industrial supervisors to follow up on their progress. At the end of the trainee period, students need to submit final reports with the evaluation form and certificate from the company to the PEM AC. She will then discuss with students' industrial advisors if necessary and will evaluate their gained work experience, knowledge applications and performance through the internship report. In addition, PEM cooperates with IRTTC to organize career days, workshops, and seminars with companies. PEM has successfully introduced the students to get paid internships and job offers in lead companies such as Adidas Group, Framas, Puma, Intel, Bosch, Mercedes Benz, Intel, Nestle, Pepper and Fuchs, TTI, etc.

6.1.5 Master of Business Administration (MBA)

With regards to the MBA program, in addition to the resources provided by the other sections of the organisation we also have MBA specific resource:

Booking Rooms at City Campus for Study Purposes: The Faculty Assistant arranges for rooms to be made available for the MBA and other students, for study purposes, outside of class hours. When the MBA students make special requests for rooms then the Faculty Assistant will book a room for them. This can be for team meetings, presentation preparation, etc.

City Campus - Library Facilities: The main library of VGU can provide the MBA students with textbooks upon request. These textbooks are delivered from the main campus to the Faculty Assistant to then hand them over to the students. In addition the MBA students have complete access to the online library and also over 73 textbooks located in the City Campus MBA mini-library. Other services provided by the library include workshops on the on-line library database and also on how to have an academic standard of referencing and citation. These workshops are held during orientation and also at the end of semester 2 to prepare the students for their studies with the German partner institution.

Writing Academic Papers: As the MBA students are from industry and may not have been exposed to academic writing for a considerable period of time the MBA program provides them with two opportunities to attend a workshop on academic writing. This workshop is delivered by the Director of the to-be CEHE.

Industry Related Activities: As stated before, the goal of the MBA program is to develop business leaders and/or managers for the future. Therefore, in order to enhance our students' learning experience and supplement the curriculum we invite business leaders to present to the students on relevant topics and also hold industry tours. These activities provide them with a very practical experience to enhance their development as business lead-

ers/managers. In addition the MBA is actively involved in business in Vietnam with membership of the following Chambers of Commerce including “German Business Administration (GBA)”, the “European Chamber of Commerce Vietnam (EuroCham)”, the “American Chamber of Commerce (AmCham)”, the “Australian Chamber of Commerce Vietnam (AusCham)” and “Vietnam Business Forum (VBF)”. Computer Science (B.Sc.)

6.2 Assessment

6.2.1 Aspects that apply to all courses of study

In the opinion of the expert group, the adequate implementation of both study programs is sufficiently ensured with regard to the qualitative and quantitative spatial and material equipment. The available spatial, material and technical resources are well suited for the implementation of both study programs. The administrative staff is also sufficient, as evidenced by the statements of the university members and the students in the discussion rounds.

The financial resources or the budget and material resources are adequate for the study program objectives and are secured for the period of accreditation. The use of the library is rated as very good. The necessary IT infrastructure is also sufficiently available.

The relevant study organization documents (examination regulations, module handbooks, etc.) are available in approved form and have been published. Individual support and advice for prospective students and students is adequately regulated by the student advisory service. In addition, the VGU provides a variety of information and counseling services for prospective and current students. At the beginning of their studies, all students are comprehensively informed about the structure of the study programs, their specific aspects of the study regulations and the possibilities for individual design. In addition, the Examination Committee and the Admissions Committee provide advice at fixed office hours.

The expert group was able to convince itself that a supportive and constructive climate prevails in both study programs. The impression that this is equally present among the students as well as among the lecturers, and also between the students and the lecturers, is remarkable here. The lecturers also stated that they were committed to providing the best possible support for the students. This self-claim of the lecturers could be confirmed in the discussion with the students, who feel well cared for. The same applies to administrative processes, whose organization was also positively evaluated. The students therefore confirm that the relationship with the lecturers and also within the students is very good and that work takes place at eye level, which is assessed as very pleasant. In addition, the students praise the very good support. The close contact between teachers and students is to be emphasized as positive. In summary, it can be said that there is basically very good support, both from the administrative and the teaching side, as well as between the students themselves, throughout the course of study.

The teaching modules are basically goal-oriented and are geared towards an ever-increasing level of independence. According to the discussions with the students and the teachers and in alignment with the study plans, there is no overlapping of courses and examinations. The students have enough time to prepare for the examinations. A good distribution of the examinations over the course of studies is also ensured by the study plan. D The workload is assessed by the students as high, but quite appropriate. The evaluation panel therefore welcomes the regular workload surveys in order to keep an eye on the workload and, if necessary, to derive recommendations for action.

The review panel was able to convince itself in the discussions that the responsibilities for the study programs are clearly regulated. The study organization is transparent and comprehensible. The students reported that the contact persons and lecturers are very easy to reach and rated the overall support as individual and very good.

The study program is therefore plannable and reliable. In conversation, the students rated the direct, uncomplicated exchange at eye level with the faculty and their advisory competence in all areas as a positive aspect of their studies. The university has a specific organizational culture whose guiding principle is "students first". Faculty and students work at eye level and faculty always try to put themselves in the students' heads and needs. Students therefore feel that they are being well advised. Students are very satisfied with the courses they are offered. The individual support, advice and assistance provided to students certainly contribute to this. Overall, sufficient resources are available for individual student support, advising and assistance.

6.3 Conclusion

The criterion is **fulfilled**.

7 ESG Standard 1.7: Information management and Programme Management and Organization and Quality Assessment and Assurance

Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.

7.1 Implementation

The Internal quality assurance system: At VGU, SQM regularly collects evidence-based data and feedback from students, graduates and other stakeholders of VGU to measure quality, determine areas needing adjustment and to continuously improve study programs as well as measuring instruments and processes. There are the Entry Evaluation Survey for newly-

admitted students, the Service Evaluation and the Module Evaluation for currently enrolled students, the study Program Evaluation for newly graduates, and the Employability Survey for alumni as well as the Employer Satisfaction Survey.

The purposes for each evaluation or survey are the following:
The entry evaluation is aimed at gaining insights of students' experience with recruitment activities, application as well as admission procedures. The module evaluation aims at improving the quality of the modules in respect of teaching and learning. This evaluation is conducted for each module offered at VGU, in all study programs and the foundation year. The service evaluation provides information on study organization, administrative services and facilities each academic year. The program evaluation gives feedback on the overall satisfaction with the study program and future career perspectives of the graduates. The employability surveys provide information on the career path of the graduates. The employer survey in the future will provide information on how much the competencies, skills and behaviours of graduates meet the employers' requirements.

All evaluations and surveys are currently regulated in the Evaluation Regulation, which is part of the regulatory framework for quality management.

The evaluations and surveys at VGU are important tools for continuous improvement in study program quality as well as VGUs overall quality. The results from the surveys are the source of reference for the decision-making of the leaders and for knowing what is working well and what needs attention in order to continuously improve the quality of the programs. For example, results from module evaluations could be immediately used to improve the teaching quality. After getting the module evaluation reports, lecturers have time to give feedback to their students and have appropriate changes, if needed. Furthermore, if a module has negative feedback from students, the ACs and Deans/Vice deans can discuss with the respective lecturer later how to improve the teaching quality or have further actions on the issues indicated in the module evaluation. The program evaluation provides information on workload and difficulty of study programs, and recommendations from newly graduated on their curriculum. This information can be used in the program review later. Another example is that the results of the employability surveys can indicate how well VGU prepared their students for employment. In 2021, the employment rates of VGU graduates, 1 year and 3 years after graduation, are 95% and 99% respectively. With a high rate of employment, it is one of the important indicators showing high educational quality and deciding success of the study programs and the university.

All results from the evaluations and surveys related to academic aspects are reviewed by the QAC. The QAC discusses the outcomes of the academic evaluations, draws conclusions and proposes improvement actions for identified issues. In case of necessity, the committee develops a catalogue of appropriate improvement measures. Action items listed in the

catalogue are implemented by the faculties with the support of the Quality Assurance Office, if necessary.

For example, the results of module evaluations are reported to the QAC semesterly and the QAC shall review and advise if there is any improvement needed. It can also include reviews on the process and the questionnaire of the evaluation. In the summer term 2020, due to the pandemic, VGU changed the learning mode to also online teaching. SQM reacted in the short term and developed a specific questionnaire for modules taught online. After one year implementing that questionnaire, SQM proposed an adjusted questionnaire to evaluate the online teaching for which the QAC is the body to review and approve the adjusted form. The data resulting from the surveys are reliable. The data collection follows the process of each type of evaluation or survey. As regulated in the Evaluation Regulation, the data collected from the surveys and evaluations are only provided to involved parties. All personal data from VGU stakeholders such as students, graduates, alumni, and employers in the future are under a protection clause and treated as confidential. This regulation can assure consistency and reliability of the data. To collect data from relevant stakeholders, SQM applies various tools such as sending paper-based evaluations to students, using Google Forms, and in the future, applying an own VGU application. The surveys are continuously improved. SQM regularly reviews the processes and questionnaires of the surveys. At the end of the questionnaires, there are questions asking the surveyees about hints to improve the questionnaires. Before applying a new questionnaire, SQM also conducted a pilot test to ensure the reliability of the questionnaire. For example, in the year 2020-21, it applied a new questionnaire for the service evaluation. After having reviewed the questionnaire of the previous academic year, SQM conducted a pilot test prior to the official survey. Besides, the QAC also supports the Quality Assurance Office to review the evaluations and surveys. The results from the surveys are a good source for decision making, showing the current status of the programs and giving recommendations to improve quality in the future. Moreover, they provide transparency of the programs and the university. Besides, the evaluations and surveys are also continuously improved which make them more reliable and consistent. However, SQM is now facing some challenges in getting enough responses for the surveys, especially when it comes to online evaluations. To solve this issue, SQM suggests improving the students' perspectives on evaluations when they first enter the university in hope that students will understand the importance of their feedback and evaluations and then take the evaluations seriously.

The VGU works with an performance indicator system that measures the performance and progress of a business against its key objectives. As the same, at VGU, the purpose of using KPIs is to help the top leaders/ the Presidential Board to evaluate VGUs success at reaching specific targets of the faculties, departments and centres. The VGUs indicator set approached

above methodology as well as its calculation. Theoretically, there is no doubt that a good set of indicators can bring many benefits to the logic of decision making for leaders. At VGU, to make the use of indicators more effective, SQM mapped them out with a logical thought process for how those numbers were conceived that creates a hierarchical, decision structure. By showing the logical structure of how indicators are conceived, team members understand how they are determined, what activities people are working on, and how their work affects VGUs performance measurement and the attainment of VGUs overall goals.

The student management information system collects student data manually during the enrolment which takes place right before every new academic year. The data is taken from notarized documents, which, to an extent, guarantees its accuracy. After the process of consolidation, the data is input into the Student Master Data as well as on the Student Information System (SIS).Throughout the study duration at VGU, students might apply for termination/deferment, be expelled by partner universities, or meet the requirements for graduation.

The integrated campus management system is a professional holistic software system which administers the VGU in academic and administrative management. The ICMS consists of the four modules Student Lifecycle Management (SLcM), Financial Management Information System, Human Resource Management Information System, Document Management System plus an all-encompassing BI system. In particular, SLcM is the new software to be used for academia and student management at VGU. Especially, the functionalities cover a student lifecycle from even application, admission, enrolment, progression, examination, and later on graduation. Data will include all possible aspects of the university like data of students, lecturers, programs in general, curricula, modules, timetables and examination grades. Upon available data, various statistics regarding student population, graduate number or gender will be easily and quickly available via dashboards on the BI system. This will deliver transparent information and factor for decision making processes. SLcM alias Academia is being practiced intensively by the key users. The software is going to be used starting from the winter semester 2021/22. The main scope shall be the core processes in academic and student management. In the long run, VGU staff shall have a proper and sustainable handling at university level. SLcM will devote to the target having a single source of truth for all organizational units at the university. The software will be a transparent instrument for performance monitoring, reporting and strategic decision making of the university.

7.2 Assessment

7.2.1 Aspects that apply to all courses of study

The VGU has appropriate mechanism for the information management at its disposal. The different kinds of evaluation surveys guarantee that relevant information is collected. The different questions of the surveys allow to get a relatively complete, up-to-date, and serviceable picture of the current state of the programs. The information gained are treated confidentially. In the talk with the students, it was confirmed that if the surveys indicate some weak points, consequences are drawn. As written in the self-documentation, some of the lecturers refuse to adopt their behaviour when the surveys revealed some weak points. However, the VGU does its best to convince these lecturers to change their attitude by offering specific workshops for example. The number of responses for the surveys is at a suboptimal level at the moment, but the VGU tries to encourage students to answer the surveys.

7.3 Conclusion

The criterion is **fulfilled**.

8 ESG Standard 1.8: Public information and Openness and Transparency of programmes

Institutions should publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.

8.1 Implementation

VGUs website (www.vgu.edu.vn) acts as the main platform for users to search and browse information and content online. The website is an external facing site designed for prospective and current students, prospective staff, and the public. VGUs website provides sufficient information on the university's activities to ensure the accountability and transparency of the programs and university to students, staff, society, government and other external stakeholders about admission and student recruitment, Scholarship and tuition fee, student services and activities, ILOS, qualifications, teaching, learning, and assessment procedures (exam regulations) at the pace of each program; information on quality of teaching, learning, services at VGU, employability of graduates as well as accreditation status of all programs and research.

VGU follows a role matrix of website content updating in posting news or updating information on the website. The writing content must follow VGUs communication guideline and VGUs

web content management model to ensure accuracy, transparency and consistency in publishing. Each VGU unit reports to the head or deputy head of department, director of centre, dean or vice dean, AC and IT department in terms of content and technical issues to ensure the website works well. The Report Template was shown to the expert group.

The SWOT analysis carried out on the website shows the following result: Next to strengths like a relevant and unique content structure, good hosting service, responsive design with full mobile support as well as an intuitive navigation and search; the weakness of the website is the rather old fashioned design and the limit on updating videos and images. The improvement measures could be to Launch professional training for staff who is in charge of content writing to improve the quality of content and writing. Monthly report must focus on the content and technical issues in more detail (as can be seen in the Report Template) to ensure the website and its weaknesses can be improved and resolved in Time and efficiently). More over to improve the website in line with the brand identity in terms of content and technical design to attract a higher public.

8.2 Assessment

8.2.1 Aspects that apply to all courses of study

The main instrument of public communication is the homepage. In general, the university has well-structured, clearly recognizable and easily understandable study programs. All required information for new and existing students can be easily found on the homepage. Additionally, contact persons were listed in many places on the homepage. Alumni, stakeholders, and the general public are also provided with sufficient information on degree programs, personnel, structure, and activities.

Nevertheless, the homepage is primarily focused on presenting the university as an educational institution and showcasing its capabilities to students. The university could think about changing the mission more towards social responsibility in education of young people and strengthening industrial competition in research. The specific and unique profile could be highlighted not by the structure but by the specific technical profile or unique equipment.

Therefore, the special features from the technical and scientific point of view should be presented in addition to the flying campus. News should be updated more flexibly here and visualized for different target groups. Special contact areas for industry, showing concrete cooperation topics/fields, could make it easier to quickly find the right contact person for a possible cooperation. The design of the homepage should be reviewed and updated in the future. Although a lot of information is given in text form, nowadays mainly a dynamic presentation with expressive and dynamically changing large images is used. More people and life on campus could be shown.

8.3 Conclusion

The criterion is **fulfilled.**

9 ESF Standard 1.9: On-going monitoring and periodic review of programmes and Quality Assessment and Assurance

Institutions should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to continuous improvement of the programme. Any action planned or taken as a result should be communicated to all those concerned.

9.1 Implementation

The VGU monitors and periodically reviews its degree programmes. To do it in a more systematic way, The Strategy and Quality Management Department (SQM) has introduced a 1-year cycle and a 5-years cycle review process as described in Chapter IV of the Program Development and Review Guidelines. The 5-year programme review cycle is detailed in the Major Programme Review Process.

This process is applied for the already transitioned programmes. For to-be-transitioned programs, the major program review is an indispensable part of the transition and conducted as step II of the Project Guideline and Task Allocation for Program Transition Project . The 1-year programme review cycle is detailed in the Minor Programme Review Process. The minor program review process has been developed recently. It was approved by the FC of the FoM and signed by the Dean of faculty. In the FoEM the process is still under review. It shall be implemented at the end of the academic year 2020/21.

All current 16 programmes at VGU were established in cooperation with German partners. The major program review guided by the Project Guideline and Task Allocation for Program Transition Project has been implemented for eight programmes so far. All important activities and outcomes of the program review are recorded in a program review report. The time frame for implementation of major program reviews in the next five years are defined in an program review plan.

The aim of the program reviews is to analyse all facets of an existing program and to reflect on its strengths and weaknesses in order to enhance program quality. The major programme review includes for example the following steps: A plan for program review; Preparing date, information and reports that are necessary for the program review as well as establish an Program Review Committee (PRC). The next steps are to conduct a survey and or a market

research, organize program review workshops, write a program review report. Then the modified program documents (outcomes of the program review) must be approved and all program review activities and outcomes will be documented. The PRC, an ad hoc committee, of a program is responsible for conducting the review process.

The members of PRC include at least the following members: AC (Chair of PRC), Dean/Vice Dean, Lecturers of the program (faculty members), Lecturers/Program Director/Program Coordinator from German partner , one representative each from ASA, SQM, IRTTC, RMD, LCFY and one student representative. Therefore, the PRC includes representatives which can provide consultation from different perspectives on quality standards, legal compliance, academic aspects and administration at VGU.

The available data and information covering all aspects of the program quality necessary for program review are collected in advance. These data, information and documents subjected to be collected and reviewed are for example the Quality of teaching and learning, the learning environment, support services facilities, employment rat and salary, admission procedures and expectations of new students, students workload or employer expectation and evaluation on skills and competencies of the graduates, internships, research and teaching activities of lecturers etc.

A program survey involving industry, alumni and current students and/or market research is conducted to ensure the program's response to the needs of students and society. Representatives of students, alumni, industry and academia are engaged in face-to-face discussions in the program review workshops to voice their demands and expectations directly. Contributions from industry and academic play a vital role in helping to update the content of the program under review. For example, in the external program review workshop of CSE, the employers and students expressed strong demands on soft skills, English skills and a certain mindset for students, know how to work in a real company and working professionally. The program leaders acknowledged these recommendations and committed for enhancement of these aspects of the program.

Outcomes of a program review bring recommendations for quality improvement and specific changes in profile of the study program documented in program concept, specific examination regulation of the program, curriculum and module handbook (module descriptions).

These documents usually go through QAC, FC and Senate for consultation and approval; the approved exam regulation will be finally promulgated by the Presidential Board. These important documents applied for new intakes will be published on VGUs website. Relevant actions are recorded in the QAC's meeting minute, FC's resolution and Senate's meeting minute. The documents are further part of the program review report and enclosed as its annexes. The QAC's meeting minute and FC's resolution are sent to relevant academic

staff for implementation. Meanwhile Senate's meeting minute reaches all university members. The Quality Assurance Office is responsible for follow-up, monitoring and documenting the implementation of the actions on quality improvement.

The major program review process was initially discovered by ASA in 2017/18. From that staring point, SQM has developed the process further and implemented it since 2019. The process has been improved continuously based on feedback of internal stakeholders. This process has proved to be a helpful document informing clear tasks, responsibilities and targeted outcomes to the involved people. SQM together with other departments are always at the program leaders' disposal giving support and consultation all the way. Therefore, requirements on administration, legal aspects, quality assurance and accreditation as well as academics have been reviewed and secured.

However, the 5-year cycle of the major program review process is very long and the focus is on major changes and important documents such as curriculum and specific exam regulation. Until lately, there has been no official process helping the program and lecturers review the modules yearly, especially on effectiveness of planned teaching strategies for ILOs and effectiveness of procedures for assessment of students. Therefore, the minor program review process was proposed to help the programs tackle this issue. This also facilitates changes and improvements of individual module descriptions and shares and multiplies best practices at both program and faculty/university level each year. In other words, it also offers an opportunity for professional development of people involved, which is also connected to the quality enhancement of the program.

9.2 Assessment

9.2.1 Aspects that apply to all courses of study

It is clear from the self-report and the interview with the program managers and teachers that a wide range of feedback procedures and evaluation tools are continuously used in the study programs.

The review panel therefore finds that a mature and functioning quality management system is implemented at VGU. In the discussions with the university, the evaluation forms were explained systemically and its processes and structures were presented with regard to quality assurance and development.

The study programs are subject to continuous monitoring with the participation of students. VGU regularly conducts surveys, evaluations and statistical analyses. On this basis, measures are derived to ensure the success of the studies. These are continuously reviewed and the

results are used for the further development of the study programs. The participants are informed about the results and the measures taken, taking into account data protection concerns. In addition to course evaluations, statistical data to assess the success of the study programs are continuously collected and very well evaluated.

Overall, the quality assurance and development of the study programs is based on a systematic and comprehensible process, enriched by participatory and dialog-based opportunities for students to help shape the further development of both study programs in the long term. The mechanisms for reviewing quality assurance, such as regular workload surveys and an accompanying adjustment to the study programs, are implemented in a meaningful way, as are the resulting outcomes.?

9.3 Conclusion

The criterion is **fulfilled**.

10 ESG Standard 1.10: Cyclical external quality assurance and Quality Assessment and Assurance

Institutions should undergo external quality assurance in line with the ESG on a cyclical basis.

10.1 Implementation

VGU employs accreditation as external quality assurance in line with the ESG on a cyclical basis. Article 18 of VGUs Quality Management Regulation requires all programs to be accredited according to Vietnamese legal requirements and international accreditation standards and procedures: “The Strategy and Quality Management Department (SQM department) incorporates the QM unit of VGU and is directly allocated to the President. It is the first contact partner, both internally and externally, for all QM issues. Besides strategic management, the SQM department allocates all pillars of QM; namely external QA (accreditations), internal QA (evaluations), pr cess management and faculty development, as well recruitment. The Head of the SQM department reports to the President.”

The programs which have not been transferred to VGU yet implement the accreditation requirements of the German partner universities. An accreditation process at VGU will be applied for the programs owned by VGU and is explained in the process description “Program Accreditation”.

In particular, the programs under transition must participate in program accreditation at the end of the transition or in parallel. After transition, the programs shall engage in next

accreditation cycles every five years. A program initiated and developed by VGU independently by suggestion of members of the faculty is required to undergo program accreditation before the graduation of the first intake. This process is defined the process description “Program Development and Review Guidelines”: Chapter IV of the Program Development and Review Guidelines also provides important instructions for involved people.

All programs at VGU have been accredited or in the process of (re)accreditation by international accreditation agencies from advanced countries in the world such as Europe and USA). However, after transition the programs need their own accreditation at VGU. VGU will obtain institutional accreditation following legal requirements and its strategic goals. It is planned to register for institutional accreditation in 2022. The SQM department has proposed the budget and suitable accreditation agencies to the Presidential Board.

10.2 Assessment

10.2.1 Aspects that apply to all courses of study

The quality assurance processes of the VGU cover all relevant organisational levels of the institution. All programs obey the relevant national legal framework and international standards. Workshops with external stakeholders are held periodically. The establishment of an industry advisory board as an advisory body is recommended. Sponsorship opportunities could arise here.

As far as the legal framework of quality assurance is concerned, the programs are carried out in accordance with the rules and guidelines of the VGU. For the programs to be accredited, regular assessment of study and educational outcomes from the perspective of employers and required educational outcomes from the perspective of graduates of the program is carried out. The procedures for external evaluation of the quality of individual study programs are carried out in accordance with the national requirements in the field of education.

The quality management ensures very well that the general quality assurance measures and instruments are constantly updated and transparent. The university fulfils all mandatory aspects of external quality assurance: the various organizational units and levels are sufficiently in place and were explained in detail during the interviews with the university. Both internal and external quality assurance of the university's measures take into account all legal requirements and benefit from each other to advance the quality development of the study programs. External quality assurance includes all necessary organizational levels such as financial operations and educational offerings. The internal and external quality assurance mechanisms for the continuous development of the study program are well developed, and the cyclical operation of the quality assessment of this study program is effective. The quality of the surveys and

the processing of the results can be rated as very good. No specific problems in cyclical external quality assurance were reported for all study programs.

The follow-up activities of the university's external quality assurance in preparing the next procedure are generally well thought out. The results of the external evaluation and recognition of the quality of the study programs (reports, expert opinions, etc.) are published on the University's website. The coherence between external and internal quality assurances is well structured.

And as already recommended, a clear profile of VGU as a research-oriented university of applied sciences or as a research-oriented university should be defined and agreed on it.

10.3 Conclusion

The criterion is **fulfilled.**

IV Recommendation to the Accreditation Commission of ACQUIN

1 Assessment of compliance the Standards and Guidelines in the Higher European Area (ESG) in the actual official version

The study programmes „Computer Science “ (B.Sc.), „Mechanical Engineering” (B.Sc.), „Business Information Systems” (M.Sc.), „Production Engineering and Management” (M.Sc.), “Master of Business Administration (MBA)” were assessed on the basis of the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG),

The expert group concludes that the **ESG standards** 1.1 (Policy for quality assurance), 1.2 (Design and approval of programmes), 1.3 (Student-centred learning, teaching and assessment), 1.4 (Student admission, progression, recognition and certification), 1.5 (Teaching staff), 1.6 (Learning resources and student support), 1.7 (Information management), 1.8 (Public information), 1.9 (On-going monitoring and periodic review of programmes) and 1.10 (Cyclical external quality assurance) are fulfilled.

Comprehensive evaluation of the expert group:

The assessment criteria are as follows:

Standard 1.1 Policy for quality assurance: Universities have a publicly accessible quality assurance strategy, which is part of their strategic management. This strategy is developed and implemented by internal stakeholder representatives through appropriate structures and processes, involving external stakeholders.

The criterion is **fulfilled**.

Standard 1.2 Design and approval of programmes: Universities have procedures for the design and approval of their courses. The courses are designed in such a way that their objectives, including the desired learning outcomes, can be achieved. The qualification obtained during a degree program is clearly defined and communicated; it refers to the corresponding level of the national qualifications framework for higher education and, consequently, the qualifications framework for the European Higher Education Area.

The criterion is **fulfilled.**

Standard 1.3 Student-centred learning, teaching and assessment: Universities ensure that the courses offered are carried out in such a way as to encourage students to play an active role in the design of the learning process and that this approach is also taken into account when assessing students / examinations.

The criterion is **fulfilled**.

Standard 1.4 Student admission, progression, recognition and certification: Universities ensure that the courses offered are carried out in such a way as to encourage students to play an active role in the design of the learning process and that this approach is also taken into account when assessing students / examinations.

The criterion is **fulfilled.**

Standard 1.5 Teaching staff: Universities ensure the competence of their teachers. They use fair and transparent procedures for the recruitment and further training of their employees.

The criterion is **fulfilled.**

Standard 1.6 Learning resources and student support: The university has adequate funding to finance study and teaching and ensure that there is always a sufficient and readily available range of learning and support available for their studies.

The criterion is **fulfilled.**

Standard 1.7 Information management: Universities ensure that they collect, analyze and use the relevant data relevant to the successful conduct of studies and other activities.

The criterion is **fulfilled.**

Standard 1.8 Public information: Universities publish easily understandable, correct, objective, up-to-date and well-accessible information about their activities and courses of study.

The criterion is **fulfilled.**

Standard 1.9 On-going monitoring and periodic review of programmes: Universities are constantly monitoring their courses and regularly reviewing them to ensure that they achieve the goals set and meet the needs of students and society. The tests lead to a continuous improvement of the courses. All affected parties will be informed about any measures planned or resulting from this.

The criterion is **fulfilled.**

Standard 1.10 Cyclical external quality assurance: Universities regularly undergo external quality assurance procedures in accordance with the ESG.

The criterion is **fulfilled.**

The peer-review experts note that the recommendations from the previous accreditation procedure have been adequately taken into account.

2 Accreditation Recommendation

The peer-review experts recommend the accreditation of the study programmes „Computer Science “ (B.Sc.), „Mechanical Engineering” (B.Sc.), „Business Information Systems” (M.Sc.), „Production Engineering and Management” (M.Sc.), “Master of Business Administration (MBA)” with the following **recommendations**:

General recommendations:

1. Elective subjects should be offered that enable students to develop their individual profile.
2. The VGU should give itself a clear profile as a research-oriented university of applied sciences or research-oriented university and adapt the orientation of teaching accordingly. The acquisition of third-party funding could be helpful in this.
3. The university should develop a financial plan that identifies strategic ways to reduce costs for the duration of the accreditation: On the Vietnamese side, there should be strategic development of staff competences in subject and didactic terms. In addition, costs could be reduced by converting the German Flying Faculty to an e-learning strategy that no longer requires the German teaching staff to be present in person.
4. Interdisciplinary cooperation at degree programme level should be strengthened in order to promote networking and the exchange of students across degree programmes and to use synergy effects in teaching, e.g. through polyvalent modules.
5. The development of a digitalisation strategy is recommended.
6. In this context, the timely establishment of the "Centre for Excellence in Higher Education (CEHE)" is recommended: Here, all members of the higher education institution can undergo technical and didactic training, e.g. in the field of e-learning. The IT staff capacities should therefore also be increased in order to be able to carry these out.
7. Professional practice should be better integrated: Companies, institutions etc. should be better informed about the degree programmes and their graduates and (dual) cooperation opportunities should be created.
8. The establishment of an industry advisory board as an advisory body is recommended. This could lead to sponsorship opportunities.
9. The website should be regularly revised and updated for a better external presentation, both in terms of content and technology.
10. The proportion of online teaching should be consistently reflected in the module descriptions.

Recommendation for study programme „Master of Business Information Systems" (M.Sc.)

1. In order to increase studyability, a Fast Track and a Regular Track could be included in the curriculum so that students can choose further thematic focuses.
2. To support an early decision between application and research focus, explicitly research-focused elective courses/modules could be provided besides explicitly application-oriented modules.

Recommendation for study programme "Production Engineering and Management" (M.Sc.)

1. The module descriptions "Thesis" and "Internship" are not included in the module handbook. Therefore, the module handbook has to be completed.

V Decision of the Accreditation Commission of ACQUIN

Based on the evaluation report of the peer group and the statement of the university the Accreditation Commission of ACQUIN decided on 5 October 2022 :

General recommendations:

- Elective subjects should be offered that enable students to develop their individual profile.
- The VGU should give itself a clear profile as a research-oriented university of applied sciences or research-oriented university and adapt the orientation of teaching accordingly. The acquisition of third-party funding could be helpful in this.
- The university should develop a financial plan that identifies strategic ways to reduce costs for the duration of the accreditation: On the Vietnamese side, there should be strategic development of staff competences in subject and didactic terms. In addition, costs could be reduced by converting the German Flying Faculty to an e-learning strategy that no longer requires the German teaching staff to be present in person.
- Interdisciplinary cooperation at degree programme level should be strengthened in order to promote networking and the exchange of students across degree programmes and to use synergy effects in teaching, e.g. through polyvalent modules.
- The development of a digitalisation strategy is recommended. In this context, the timely establishment of the "Centre for Excellence in Higher Education (CEHE)" is recommended: Here, all members of the higher education institution can undergo technical and didactic training, e.g. in the field of e-learning. The IT staff capacities should therefore also be increased in order to be able to carry these out.
- Professional practice should be better integrated: Companies, institutions etc. should be better informed about the degree programmes and their graduates and (dual) cooperation opportunities should be created.
- The establishment of an industry advisory board as an advisory body is recommended. This could lead to sponsorship opportunities.
- The website should be regularly revised and updated for a better external presentation, both in terms of content and technology.
- The proportion of online teaching should be consistently reflected in the module descriptions.

Computer Science (B.Sc.)

The study programme "Computer Science" (B.Sc.) is accredited without any conditions.
The accreditation is valid until 30. September 2028.

Mechanical Engineering (B.Sc.)

The study programme "Mechanical Engineering" (B.Sc.) is accredited without any conditions.
The accreditation is valid until 30. September 2028.

Business Information Systems (M.Sc.)

The study programme "Business Information Systems" (M.Sc.) is accredited without any conditions.
The accreditation is valid until 30. September 2028.

Production Engineering and Management (M.Sc.)

The study programme "Production Engineering and Management" (M.Sc.) is accredited without any conditions.
The accreditation is valid until 30. September 2028.

The following recommendations are given for the further development of the study programme:

- The module descriptions "Thesis" and "Internship" are not included in the module handbook. Therefore, the module handbook has to be completed.

Master of Business Administration (MBA)

The study programme "Master of Business Administration" (MBA) is accredited without any conditions.
The accreditation is valid until 30. September 2028.

The following recommendations are given for the further development of the study programme:

- In order to increase studyability, a Fast Track and a Regular Track could be included in the curriculum so that students can choose further thematic focuses.
- To support an early decision between application and research focus, explicitly research-focused elective courses/modules could be provided besides explicitly application-oriented modules.