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#### Positiv akkreditering af nyt udbud af professionsbacheloruddannelsen som bygningskonstruktør (Ho Chi Minh)

Akkrediteringsrådet har 26. juni 2015 akkrediteret det ansøgte udbud i Ho Chi Minh City, Vietnam af professionsbacheloruddannelsen som bygningskonstruktør **positivt**, jf. akkrediteringslovens § 14 stk. 1.1 Rådet har truffet afgørelsen på baggrund af vedlagte akkrediteringsrapport fra Danmarks Akkrediteringsinstitution.

Det er rådets faglige helhedsvurdering, at udbuddet opfylder kriterierne for kvalitet på tilfredsstillende vis.

Rådet har vurderet udbuddet ud fra de kriterier for kvalitet, som fremgår af bekendtgørelsen om akkreditering og godkendelse af erhvervsakademiuddannelser og professionsbacheloruddannelser mv., bilag  $1.^{2}$ 

Akkrediteringen er gældende til og med 26. juni 2021, jf. akkrediteringslovens § 15, medmindre uddannelsesinstitutionen i mellemtiden har opnået en positiv eller betinget positiv institutionsakkreditering.

I er velkomne til at kontakte direktør Anette Dørge på e-mail: akkr@akkr.dk, hvis I har spørgsmål eller behov for yderligere information.

Med venlig hilsen

Per B. Christensen

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Dette brev er også sendt til:

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 $^{\rm I}$  Lov nr. 601 af 12. juni 2013 om akkreditering af videregående uddannelsesinstitutioner (akkrediteringsloven)

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<sup>&</sup>lt;sup>2</sup> Bekendtgørelse nr. 691 af 30. juni 2009 om ændring af bekendtgørelse om akkreditering og godkendelse af erhvervsakademiuddannelser og professionsbacheloruddannelser mv.



Akkrediteringsrapport



LOCAL PROVISION ABROAD OF DANISH PROGRAMMES OF VOCATIONALLY ORIENTED HIGHER EDUCATION

# PROFESSIONAL BACHELOR DEGREE IN ARCHITECTURE TECHNOLOGY & CONSTRUCTION MANAGEMENT

UNIVERSITY COLLEGE OF NORTHERN DENMARK HO CHI MINH CITY UNIVERSITY OF ARCHITECTURE



Professional Bachelor Degree Programme in Architecture Technology & Construction Management
University College of Northern Denmark
Ho Chi Minh City University of Architecture
15/013518
June 2015
This publication is available online at www.akkr.dk

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## Recommendation

The Danish Accreditation Institution recommends University College of Northern Denmark provision of the programme for Professional Bachelor Degree Programme in Architecture Technology & Construction Management in Vietnam at Ho Chi Minh City University of Architecture, for:

## Positive accreditation

## Reasons for recommendation

The Accreditation Panel assesses that UCN and HCMUARC have made a clear organisational setup that makes it possible to assure the quality of the programme provided abroad. The panel finds that there is a clear and appropriate division of labour and responsibility between the partners. Furthermore, there are clear communication channels between the partners. The panel finds it positive that for the first year of ATCM-VN programme operation, UCN will relocate its Programme Coordinator to live in Ho Chi Minh City, with a view to maintaining close daily supervision of student performance and the pedagogical basis applied in the programme. HCMUARC will also appoint a Programme Coordinator. These two Coordinators will be responsible for day-to-day communication between the partners.

The Accreditation Panel finds that UCN and HCMUARC will be able to provide the requested relevant internships. The relevant internships will be at Vietnamese enterprises and authorities, international enterprises operating in Vietnam and in the global labour market outside Vietnam. A total of 35-40 internships will be required from the beginning of 2019. The panel finds the plan to ensure that there is the required number of relevant internships is realistic. Moreover, the panel finds it positive that the UCN Global Office has obtained endorsements from 10 future internship hosts.

The Accreditation Panel finds that the local provision is based on the Danish curriculum model for the ATCM programme and also that the programme is appropriately adjusted to local conditions. It has been demonstrated that the local provision of the programme is organised in such a way that students can achieve the learning-outcome goals of the education programme. The Accreditation Panel finds that admission requirements and procedures ensure that students who begin the programme have qualifications at the same level as students admitted to similar education programmes in Denmark. This is made possible because of an intro-year, which is an extra year compared to the Danish students. The Accreditation Panel finds that it has been made possible for students to stay in another country without prolonging the overall time of study.

The Accreditation Panel notes that contact between HCMUARC and the labour market is limited and not continuous. The partners acknowledge the need to establish a more formal approach to ensure that knowledge from the targeted sectors and labour market are incorporated into the ATCM-VN Programme. Instead the teachers and management of HCMARC enter into many informal dialogues with external parties like local businesses, the Vietnamese Association of Architects, etc. (Additional Documentation, 26.03.15, p. 4). This reflects a market structure in which business sectors are generally not formally represented by organisations and sector-representative bodies, but they are typically represented through the opinions and initiatives of leading enterprises and leading managers within the sector. However, the panel recognises that the programme will be continuously based on new knowledge of core trends within the employment areas at which the programme aims. This knowledge will be acquired from the Danish programme and through the Advisory Board. The panel finds that the programme will be continuously based on new knowledge of relevant development work and current results from research fields that are of relevance for the programme's subject areas. In particular, the panel finds the Ph.D. team positive.

The Accreditation Panel recognises that there are no closely related or comparable programmes in English to the ATCM-VN programme proposed by UCN. However, the panel finds that there is a relevant academic

environment through the international co-operation programmes for combined degrees and through HCMUARC international partners. The Accreditation Panel has looked at all 18 CVs and finds the lecturers and professors have relevant qualifications for the programme. The Accreditation Panel finds that UCN has described and provided reasons for the goals and plans set up for the development of the academic environment.

The Accreditation Panel finds the described facilities and resources relevant for the programme and finds it positive that the partners have made a plan for how get the facilities and resources they do not already have.

The Accreditation Panel finds that UCN has described and documented the quality assurance of the ATCM-VN programme. The partners have prepared: "Supplement Agreement 1 Re. Quality Assurance and Evaluation Procedures of the ATCM Programme" which clarifies who is to be responsible for the different parts of the quality work, how the different parts of the quality work are to be carried out systematically, what information on programme quality will be collected on a continuous basis, and how often. The panel notes that the Governance Board and the Programme Coordinators are central participants in assuring and developing the quality of the activities and results of the programme. They are also responsible for using the management information to generate solutions, targets and actions which the panel finds necessary to secure the quality of the programme on a day-to-day basis. Furthermore the panel assesses that the Governance Board, which includes the UCN Rector, will be able to secure the quality programme on an annual, strategic level.

The Accreditation Panel has assessed this application on the assumption that the partners, UCN and HCMUARC, are able to implement the Framework Agreements the partners have agreed upon and also to cooperate about ensuring the programme. One document "ATCM in Vietnam, a joint programme by UCN and HCMUARC" (Appendix 21) has not yet been approved by both partners. This assessment is based on the condition that this document will be approved by both partners. Furthermore the assessment by the panel assumes that UCN is able to ensure the quality of the local provision of the programme in Vietnam.

The accreditation assessment is based on the criteria for a programme's quality and relevance that are stipulated in the Danish Executive Order on accreditation and approval of academy profession programmes and professional bachelor's programmes etc., no. 691 of 30 June 2009, Annex 1: "Criteria for the quality of new local provision of academy profession programmes, professional bachelor's programmes, adult academy profession degree programmes (VVU) and diploma programmes abroad".

# The accreditation panel

This report has been prepared by the Danish Accreditation Institution in collaboration with an accreditation panel that was established for this specific assessment. The panel's members were appointed on the basis of their knowledge of the subject fields of the education programme, planning and implementation of education programmes, and labour market conditions. The panel comprises:

- Per Kortegaard, architect and associate professor at Aarhus School of Architecture. Former censor for programmes for contractors and a member at the Study Board at Aarhus School of Architecture. Member of the Board of Directors for Byggeriets Videns- og Uddannelsesinstitutioner (BVU\*net).
- Lotte Bjerregaard Jensen, cand.arch. and PhD in Architecture. Head of Studies for the DTU Byg Architectural Engineering bachelor's programme and associate professor in architectural engineering at the Technical University of Denmark (DTU Byg). Head of implementing CDIO ("Conceive, design, implement, operate") for the architectural engineering line at DTU Byg.
- Dorte Salskov-Iversen, PhD, Head of Department of Intercultural Communication and Management, and Vice President for International Affairs, Copenhagen Business School. Primary research areas are public management & governance, processes of globalisation, and discourse and organisation. Bologna expert, appointed by the Ministry of Science, Innovation and Higher Education, representing the Danish universities. Former member (by appointment) of The Council for the Internationalisation of Education, the Ministry of Science, Innovation and Higher Education, representing the Danish universities.
- Josephine Maira Mitzi Bojang, graduate from the Professional Bachelor Degree Programme in Architecture Technology & Construction Management at Copenhagen School of Design and Technology, KEA. Student

representative for Academy Profession Programmes at the Council for Academy Profession Programmes and Professional Bachelor Degree Programmes (Rådet for Erhvervsakademiuddannelser og Professionsbacheloruddannelser). Former chairman at the students' council at KEA.

The composition of the accreditation panel has been through an (administrative) hearing at the educational institution. During the hearing, the institution was given the opportunity to object to a member of the panel, if it had doubts about said member's competency. All members of the panel have signed a declaration of professional competence and a declaration of confidentiality.

# Description of the programme according to the Education Guide

"The Professional Bachelor Degree Programme in Architecture Technology & Construction Management will teach you how to plan, organise and supervise construction projects. You will work with communication, planning, design and technology in all stages of construction projects.

The programme provides you with practical and theoretical knowledge of the technical and administrative aspects of construction work. You will learn about such things as surveying, choice of materials and assessing. You will also learn how to plan, control and administer assignments.

The programme of 3.5 years consists of elective courses, optional courses, an internship and a Bachelor project."

(https://www.ug.dk/programmes/professionalbachelorsdegrees/technicalandtechnological/architectural-technology-and-construction-management)

This description is duplicated in this report as an introduction to what the programme is about. The description is not a part of the recommendation.

# Basic information about the programme

## The right to offer a study programme abroad

University College of Northern Denmark is applying for the right to offer the Professional Bachelor Degree Programme in Architecture Technology & Construction Management at Ho Chi Minh City University of Architecture in Vietnam.

## Address abroad at which the programme will be offered:

The programme will be offered at Ho Chi Minh City University of Architecture in Vietnam: Ho Chi Minh City University of Architecture (ai học Kiến trúc Thành phố Hồ Chí Minh) 196 Pasteur St., Ward 6 (phường 6), District 3 (Quận 3), Hồ Chí Minh City, Vietnam

#### Language

Teaching will be in English

#### Subject area

The programme falls under the technical subject area.

## Expected student uptake

40 students to start the first year.

#### About the partners

UCN offer the 3.5 years Danish Professional Bachelor Degree Programme in Architecture Technology and Construction Management taught in Aalborg, DK in both Danish and English (international classes).

Within the Vietnamese context, HCMUARC is one of three leading universities of Architecture, established in 1951, and selected as the state university for Architect education for the South of Vietnam. The ATCM-VN Programme will be based at the HCMUARC main campus in central Ho Chi Minh City and will become an integrated part of an existing academic environment comprising 26,750 students (under-graduate, graduate, and post-graduate programmes) and 1,300 full-time staff across 8 Departments.

The Departments of HCMUARC include Dept. of Architecture, Dept. of Planning, Dept. of Construction, Dept. of Fine Arts, Dept. of Infrastructure Engineering, Dept. of Interior-Exterior Design, Dept. of Basic Sciences, and Dept. of HCM Ideology and Leninism.

HCMUARC delivers graduate programmes within Architecture, Urban and Rural Planning, Urban Design, Civil and Industrial Engineering, Infrastructure Engineering, Fine Arts, and Interior Design. The programme will be established in HCMUARC with its own management, but affiliated to the Department of Architecture and Department of Civil Engineering, drawing on the academic resources of both Departments.

# The study programme's goals for learning outcomes

The goals for learning outcomes comprise the knowledge, skills and competences that architectural technology and construction management graduates should achieve during the education.

## Knowledge

The students should have acquired knowledge about

- applied principles, theories and methodologies in management, design, planning and execution of complex construction tasks and, through reflection, be able to apply those theories and methods to different situations;
- professionally relevant theoretical concepts and methods;
- relevant communication theories and methods for communication of discipline-specific issues, including digital media within professional as well as general areas;
- principles and models of the trade for setting up, running and organising businesses; human, environmental, financial and technological matters that influence the construction process, including issues in respect of energy, working environment and sustainability in a local and global perspective; and
- managerial, social, linguistic, cultural and ethical aspects of and collaboration on construction works.

#### **Skills**

The students should be able to

- assess and use relevant methods for management, project design, planning and execution of complex construction tasks, including digital programs and systems;
- select relevant method and substantiate the choice within the profession area;
- evaluate, combine and include relevant research knowledge to solve complex technical construction issues;
- disseminate knowledge of technical research and development to relevant parties via appropriate media;
- assess business-related and organisational issues; and
- assess and understand human, environmental, financial and technological matters in respect of constructions, including aspects of energy, working environment and sustainability.

## Competences

The students should be able to

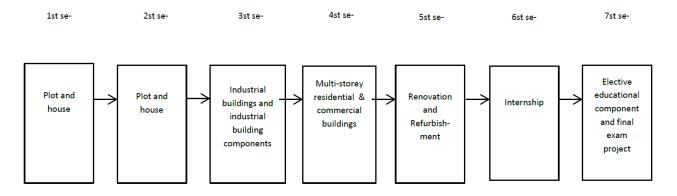
 manage, design, plan and execute complex construction tasks independently and in collaboration with other professionals;

- identify their own knowledge and learning needs so as to acquire new knowledge and translate this into professionally relevant practise; and
- handle communications between users, clients, consultants, designers and contractors about technical planning, procurement and implementation of complex building and/or construction tasks.

# Structure of the study programme

The architectural technology and construction management programme is made up of a compulsory and elective part, which consists of a number of core areas and educational components. The compulsory part is worth 125 ECTS credits, and the elective part is worth 85 ECTS credits.

Each semester constitutes a component with a separate theme. Through this theme the students get acquainted with different types of buildings, constructions and installations as well as relevant laws and regulations, etc. The topics can be seen in the below figure:



# Criterion 1: Organisation and communication

A clear organisational setup and effective communication channels have been established to assure the quality of programmes provided abroad.

The applicant must account for and document that

- there is clear and appropriate division of labour and responsibility between the educational institution in Denmark and the institution offering the study programme abroad,
- there are clear and appropriate communication channels between the Danish educational institution and the institution offering the study programme abroad, and
- there is an organisational setup that ensures continuous compliance with criteria 2-7.

## Assessment

Compliance with the criterion is satisfactory.

The Accreditation Panel finds that UCN and HCMUARC have made a clear organizational setup that makes it possible to assure the quality of the programme provided abroad. The panel finds that there is a clear and appropriate division of labour and responsibility between the partners. Also there are clear communication channels between the partners. Particularly the panel finds the setup with the UCN Global Office Vietnam positive.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

#### Organisational setup communication channels between UCN and HCMUARC

The parties in the co-operation are HCMCUARC and UCN. The organisation and communication setup between the partners is described in the following agreements:

- Framework Agreement between HCMUARC and UCN February 2015(Appendix 2)
- Supplement Agreement 1: Quality Assurance and Evaluation Procedures of the ATCM-VN programme between HCMUARC and UCN February 2015 (Appendix 3)
- Supplement Agreement 2: Student Rights and Obligations for the ATCM-VN Programme between HCMUARC and UCN February 2015 (Appendix 4)

The main principle of these agreements is that ATCM-VN (the programme) is a joint activity between HCMUARC and UCN (the partners). UCN is here responsible for the quality assurance of the programme (Application, p. 47).

HCMCUARC is represented by the management of the university and an appointed Task Force. UCN is represented by the management of the University College of Northern Denmark, and an appointed Task Force. Furthermore HCMUARC and UCN will each appoint a programme Coordinator, who will have overall responsibility for the day-to-day operation of the programme and the co-operation between the involved staff from both institutions. The Programme Coordinator from UCN will be appointed full time in Vietnam for the first year of the programme and will continue after that as Coordinator from Denmark (Application, p. 7).

The components in the organisation model are:

- Governance Board
- UCN Global Office Vietnam
- Two Task Forces one appointed by HCMCUARC and one appointed by UCN.

- Evaluation & Development Board
- Tuition Board
- Administration Board
- Two programme Coordinators

The two Programme Coordinators will be responsible for day-to-day communication between the partners. For the first year of ATCM-VN Programme operation, UCN will relocate its Programme Coordinator to live in Ho Chi Minh City, with a view to maintaining close daily supervision of student performance and the pedagogical basis applied to the programme. This means that the coordinators will constitute the highest-level direct communication point for the day-to-day operational management of the programme.

The two Programme Coordinators will work as mutual counterparts for raising and discussing issues and continuous mutual follow-up and status reporting on overall implementation of the programme and operational resource availability. The objective is to be able to identify and correct initial (culture-based) problems in converting the Danish ATCM Programme into successful learning outcomes for Vietnamese students (Additional documentation, 23.04.15., p. 5).

In case a quality issue is identified, which is too urgent to be handled by the annual reporting, target setting, and action plan development procedure, the Coordinators may initiate action directly, refer the issue to the UCN Director of Technology Education and the HCMUARC Head of the ATCM-VN Programme, or call in the Governance Board for a special, unscheduled meeting session (Additional documentation, 23.04.15, p. 2). See Criterion 7 about quality assurance of the ATCM-VN programme.

The Governance Board has the strategic management of the programme. The Board includes the Rectors of both institutions, as well as one further member from each institution, appointed by the institution Rector. The Board meets twice a year, and one of these meetings must be in person (Application, p. 6). The role of the board is to reach and implement decisions and agreements with strategic importance for the development, implementation, management, administration, and marketing of the programme. Furthermore, the Board will ensure that the operation of the programme, and any Board decision taken, is compliant with Vietnamese and Danish law governing the operations of the partners and the co-operation for ATCM programme implementation in Ho Chi Minh City (Appendix 2).

The UCN Global Office Vietnam is the representation office of UCN in Vietnam and it only represents the Professional Bachelor Degree Programme in Architecture Technology and Construction Management. The office staff includes one full time Director from Denmark, one Vietnamese Assistant and two Vietnamese Experts / Ph.D. Researchers (Application, p. 4). The Global Office is supporting and will continue to support programme development and quality assurance by providing support for work placement/internship management and development of further work placement internship opportunities for students of the programme. Furthermore, the Global Office will represent UCN for continuous development and maintenance of business networks, contacts and endorsements for the programme. Finally, the Global Office will function as a student counsellor facility for the programme students wishing to study for one or more semesters of their programme in Denmark (Application, p. 7).

Two Task Forces have been appointed. HCMCUARC has appointed a Task Force of five persons representing the academic faculties of the University, the Administration, and the International Department. UCN has appointed a Task Force of five persons representing the ATCM programme.

To organise discussion and decision-making regarding tactical issues as well as development, improvement and quality assurance of the co-operation and the programme, three Boards will be established: the "Evaluation & Development Board", the "Tuition Board" and the "Administration Board". Each Board will have six members. There will be two employees from UCN and two employees from HCMCUARC in each Board. The two appointed Programme Coordinators will also automatically join all three Boards. Each Board will meet four times a year. The meetings will be in person when possible, but may be conducted as video conferences.

The three Boards will be established for discussion and agreement on specific topics between the partners and preparation of proposals and briefings for the Governance Board (Appendix 2). The key principle of the Boards is that they each should serve as a communication channel between the staff groups from both partners directly involved in the development and implementation of the programme, and they should provide an opportunity for decision-making and problem solving directly at the relevant staff level.

The Evaluation & Development Board will oversee the implementation of evaluation processes. The Board will also gather evaluation responses into evaluation results summaries for presentation to the Governance Board. The Evaluation & Development Board will arrange meetings of the External Advisory Board and prepare suggestions for programme improvements and developments in response to evaluation results, input from the External Advisory Board, or suggestions submitted by staff. Furthermore, the Board will discuss and assess any invitations or opportunities for involvement of the programme in external development networks, projects or other platforms for exchange of skills and knowledge at programme level (Appendix 2).

The Tuition Board will discuss the curriculum content and delivery, including pedagogics and didactics issues, and identify problems, challenges or opportunities for further development. Besides that, the Board will discuss the student experience in the programme, as expressed by students to professors, student counsellors, or through evaluation processes. The Board will then identify problems, challenges or opportunities for further development. The Board will design and implement problem solutions and improvements, or prepare solutions or improvement suggestions for presentation to the Governance Board. Furthermore, the Tuition Board will review members of the UCN and HCMUARC professor and lecturer teams teaching the programme (Appendix 2). All HCMUARC members of the Tuition Board must undergo a study visit to the programme in Denmark in order to observe the application of the pedagogical basis, the conduct of semester projects, and focus on student learning outcomes in an applied context. This study visit has to be prior to entering the monitoring role as board members (Additional documentation, 23.04.15, p. 6).

The Administration Board will discuss experiences with administration of students' records, profiles and other entries to the administrative systems of HCMUARC and UCN and it will identify problems, challenges or opportunities for further development. The Administration Board will also discuss experiences with exchanges of students or staff and it will identify problems, challenges or opportunities for further development with a view to supporting continuous improvement of the exchange experience for all parties involved; students, HCMUARC and UCN, placement companies (Appendix 2).

The Accreditation Panel finds that UCN and HCMUARC have made an organisational setup that makes it possible to assure the quality of programmes provided abroad. However, the Panel notes that the organisational setup has many components, although the Panel finds it clear and transparent. The Panel finds that the partners have shown how they will cooperate and that there are clear communication channels between the partners. The Panel sees the two coordinators as key operators to make sure that there are a day-to-day communication between the partners. Particularly the Panel finds the setup with the UCN Global Office Vietnam positive. Furthermore, the Panel finds it positive that each board has members from both UCN and HCMUARC.

# Criterion 2: Internships

There are a sufficient number of relevant internships.

 For full-time academy profession programmes and professional bachelor programmes, the applicant must account for and document that the institution is able to provide the required number of internships; this includes accounting for the demand for internships.

## Assessment

Compliance with the criterion is satisfactory.

The Accreditation Panel finds that UCN and HCMUARC will be able to provide the requested relevant internships. The relevant industries are Vietnamese enterprises and authorities, international enterprises operating in Vietnam and the global labour market outside Vietnam. A total of 35-40 internships will be required from the beginning of 2019. The Panel finds the plan to ensure that there are the required relevant internships is realistic. Also, the Panel finds it positive that the UCN Global Office has obtained endorsements from 10 future internship hosts.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

HCMUARC has non experience in establishing contact to relevant workplaces with regard to internships. Therefore HCMUARC and UCN have agreed that UCN will be responsible for securing the sufficient number of internships. HCMUARC and UCN have drawn up a Framework Agreement (section 4). The task of securing internships will be undertaken by the UCN Global Office with support from the ATCM programme in Aalborg.

#### Number of internships needed for the programme

The internship period is placed in the 6th semester of the ATCM-VN programme and has a total duration of 20 weeks. UCN expect that the programme will admit app. 40 students a year and therefore create an annual need for 35-40 internships. This number of students is necessary from the beginning of 2019 under the assumption that the programme will start in September 2016 (Application, p. 10).

## Relevant hosts for programme internships

The ATCM-VN programme will target three distinct labour markets, which have been identified as separate segments of the prospective employment areas in the building and construction sector for future graduates of the programme:

- Vietnamese enterprises and authorities
- International enterprises operating in Vietnam
- Global labour market (outside Vietnam)

This division into three distinct labour markets has been made as a result of UCN's experience from market research in Vietnam, and from dialogue with employers, prospective students, and agents recruiting students for international education programmes in Vietnam.

The job functions the students are expected to fill at the place of internship are project engineering, technical inspections, construction and contract management, consultancy, logistics, planning permits, facility management, production planning, energy-efficient buildings, sustainable architectural design, high performance buildings and BIM technology (Application, p. 11).

UCN has listed possible future internship host companies from Vietnam (Appendix 8) and from Singapore and Japan (Appendix 9). UCN expects that a significant percentage of students seeking admission to the programme will be aiming for international employment in the building and construction sector. Therefore UCN finds it important to provide international internship opportunities for the students on the programme. The UCN Global Office has been working, and will continue to work, on building relationships to these companies. Also the possible internship hosts have been presented with a flyer describing the job functions that the students are expected to fill at the place of internship (Appendix 10). This will make the companies aware of the job functions they should offer the intern and it will develop company awareness about what they can expect from an intern from the programme work practice framework (Application, p 12).

The students will have a contact person at the internship host company.

The Accreditation Panel finds the listed labour markets relevant and the described job functions suitable.

#### Development plan for securing the necessary internships

The task of securing internships will be undertaken by the UCN Global Office with support from the ATCM programme in Aalborg. The UCN Global Office will develop an Asian network of internship opportunities for the programme students. The Office will also be able to access the network of European internship contacts present at UCN/the ACTM programme in Aalborg.

To develop the necessary contacts and network to internship hosts in Vietnam and the Asian region, the UCN Global Office has prepared and partly executed a plan. The UCN Global Office is establishing contacts and network connections with companies in the building and construction sector in Vietnam, Japan and Singapore (Appendices 8 and 9). The UCN Global Office will be responsible for ensuring that the internship places meet the necessary internship host requirements.

The UCN Global Office has already started creating a network of companies willing to take on interns. There are endorsements from 10 selected future internship hosts from Vietnam (Appendix 11). The companies are Vietnamese enterprises and authorities or international enterprises operating in Vietnam. The companies have stated the number of interns they have capacity to take in (approx.). Together, the 10 companies will be able to take in 26 interns.

To support the branding of ATCM interns and make the concept of interns more familiar to the targeted companies, in cooperation with the ATCM programme in Aalborg the UCN Global Office will establish internship contacts for ATCM students from Denmark to go to Vietnam or other host locations in the Asian region. During the autumn semester of 2014, two students from the ATCM programme in Aalborg completed their internship period in a Vietnamese company.

The Accreditation Panel finds the plan to ensure the necessary number of internships realistic. Also, the Panel finds that it is positive that the UCN Global Office has endorsements from 10 future internship hosts.

# Criterion 3: Organisation of the programme

The local provision of the programme adheres to the programme's goals for learning outcomes.

The applicant must account for and document that

- the organisation of the programme enables students to achieve the goals for learning outcomes established for the programme,
- the programme is organised in such a way that it is possible to complete one or more components of the programme abroad within the prescribed time of study.

#### Assessment

Compliance with the criterion is satisfactory.

The Accreditation Panel finds that the local provision of the programme is appropriately adjusted to local conditions, and that the local provision of the programme is organised in such a way that students can achieve the goals for learning outcomes of the education programme. The Accreditation Panel finds that admission requirements and procedures ensure that students who begin the programme have qualifications at the same level as students admitted to similar education programmes in Denmark. This is made possible because of an intro-year, which is an extra year compared to the Danish students. The Accreditation Panel finds that it is made possible for the students to stay abroad without prolonging the overall time of study.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

The document "ATCM in Vietnam, a joint programme by UCN and HCMUARC" (Appendix 21) has been prepared by the Danish ATCM Development Task Force from UCN. The document is a blueprint for the planned ATCM BA degree programme in Vietnam. The document shows the way UCN runs the programme in Denmark and includes proposals for increased focus on the themes of Sustainability and Building Information Modelling (BIM). All proposed changes to the Danish programme are intended to be included in the existing curriculum, which means no changes to the programme structure in terms of ECTS points. The changes to the programme are mainly about including traditional Vietnamese building traditions and Vietnamese standards. The changes amount to about 25 lecture hours per semester. The document will be discussed by the partners during a visit in spring 2015, which means that the document has not yet been approved by both partners. As mentioned in "Reasons for recommendation" the assessment is based on the condition that this document is approved by both partners.

The organisation of the programme enables students to achieve the goals for learning outcomes. The overall academic and educational content and structure of the ATCM-VN programme at HCMUARC is organised and implemented based on the Danish curriculum model for the ATCM programme in Denmark.

The programme elements (common to all providers of the programme), equivalent to 210 ECTS credits, are:

- Compulsory elements (general, business, production, design, and registration), with a scope of 125 ECTS credits
- Optional courses, with a scope of 35 ECTS credits
- Internship, with a scope of 30 ECTS credits
- Bachelor project, with a scope of 20 ECTS credits

The organisation and implementation of the programme at both UCN and HCMUARC is done in a consensus with the pre-defined themes and the learning outcomes implemented into practice through teaching in a practice-oriented and problem-based learning environment. The descriptions of the individual subjects and topics are elaborated for the students through the semester plans, supplemented by project presentations.

Learning in the programme is built around multidisciplinary projects, where the individual subjects are dependent on each other, so that the student can acquire the knowledge, skills and competencies necessary.

The Danish and Vietnamese building and construction culture and climate conditions are very different. Therefor the programmes at UCN and HCMUARC differ in the organisation of the content of each subject, semester plans and projects. Consequently, the content will be adapted for relevance to the Vietnamese framework, based on local norms, standards, building customs and construction processes (such as building, construction requirements and principles, energy and sustainability, engineering calculations, technical installations, materials and construction methods) (Application, p. 17).

The document "ATCM in Vietnam, a joint programme by UCN and HCMUARC" (Appendix 21) shows the way the programme in Denmark runs and includes elements for increased focus on the themes of Sustainability and Building Information Modelling (BIM). This is in order to reflect the previously agreed objective of developing the programme for Vietnam with a strong focus on these themes. These subjects should replace other subjects/contents in the programme that are relevant only in a Danish context. The document is divided into sections for each of the seven semesters that make up the programme. Each semester section begins with a schedule for the semester followed by the syllabus. No elements of the Danish syllabus have been completely removed from the blueprint in order to make room for the above additions. Instead, the planning issues and educational content will lead to a general limited reduction of traditional Danish standard topics covered in the curriculum, to make room for the extra sustainability, BIM and Vietnamese-market-relevant elements. There will be no changes to the programme structure in terms of ECTS points. The adaptation of content within the common curriculum structure will be planned and gradually implemented (for one semester at a time) through a continuous dialogue during the planned extended study visits to Aalborg by HCMUARC key staff and Task Force members from Autumn 2015.

The Accreditation Panel finds that the local provision of the programme described in "ATCM in Vietnam, a joint programme by UCN and HCMUARC" is appropriately adjusted to local conditions, and that the local provision of the programme is organised in such a way that students can achieve the goals for learning outcomes of the education programme. The assessment from the Panel is based on the condition that the document "ATCM in Vietnam, a joint programme by UCN and HCMUARC" will be approved by both partners.

### The pedagogical and didactic considerations and methods

The programme will be delivered in English. The pedagogical basis of the programme will utilize the same model as applied in Aalborg. UCN recognises that there is a cultural difference between Denmark and Vietnam that may influence the implementation of this pedagogical model. The pedagogical and didactic considerations and methods which will be used on the programme are based on a constructivist understanding of learning. To create a learning environment which is based on learning as an active process, the teaching will be implemented based on a didactic model (the ATCM model), which divides learning into four areas, which must be supported by the students' self-study and reflections. The learning areas are 1: Blackboard teaching/lectures (the Classroom Space), 2: Task solution/workshop (the Workshop Space), 3: Class discussions/studies (the Study Space) and 4: Project work (the Project Space) (Application, p. 19).

The implementation of the pedagogical model will be a joint effort from both the Danish and the Vietnamese lecturers. The Vietnamese lecturers will become familiar with the model during the planned study visits to Aalborg by HCMUARC key staff and Task Force members from autumn 2015, at which the Vietnamese lecturers will play an important role in making the necessary implementation and cultural translations (Application, p. 20). At least 10 HCMUARC key staff profiles are planned to conduct extensive study visits to Aalborg. Each semester of the programme, the key HCMUARC teaching staff will, to provide inputs to the semester in question (before its first implementation in Vietnam) carry out study visits to Aalborg to observe the particular semester in action, including how the PBL model is applied in practice. Study visits should be of min. 1 month duration (Additional Documentation, 23.04.15, p. 8). During the study visits, the lecturers and professors will work with their UCN counterparts to interpret the Danish learning approach and team-based project work inputs interaction for delivery in a Vietnamese learning environment (Application, p. 40).

The Accreditation Panel sees the study visits to Aalborg as a way to secure cultural translation between the partners and also ensure that the Danish model is implemented in the programme in Vietnam.

## Admission requirements and procedures

According to the Danish regulations for admission of foreign (non-EU) students into Danish academic degree programmes, the student must have completed minimum two semesters of prior academic tuition<sup>1</sup>.

Because of this demand, the partners have established the one-year HCMUARC Foundation Year Programme. The Foundation Year Programme curriculum has focus on the spoken and written technical and professional English, specific mathematics skills, technical/professional skills, and knowledge about the Danish-based pedagogics and project-based structure (Application, p. 21). UCN confirms that completion of the Foundation Year Programme implemented by HCMUARC guarantees student fulfilment of this requirement (Appendix 2).

In order to qualify for admission to the programme, students who have completed the Foundation Year Programme will be required to take the standard UCN English language proficiency test (Oxford on-line Placement Test) in an environment supervised by UCN, and an individual interview, in English, conducted by a UCN student counsellor in HCMC or by video meeting. UCN will approve admission into the ATCM programme for all students who pass the English language proficiency test with a minimum score of B2 (middle of the level) and the individual interview (Appendix 2).

The Accreditation Panel finds that admission requirements and procedures ensure that students who begin the programme have qualifications at the same level as students admitted to similar education programmes in Denmark. This is because of the Foundation Year Programme.

#### The possibility to complete one or more components of the programme abroad

It is possible for the students to study abroad at the UCN ATCM programme in Aalborg or at universities in other countries.

The partners have agreed on a joint policy to allow flexible programme attendance in Denmark and Vietnam for students on the programme in Vietnam and at UCN in Aalborg. This policy has been described in the Framework Agreement (Appendix 2).

With reservations for legal and practical considerations, this means that any student on the UCN programme in Denmark may attend any semester(s) at the ATCM-VN Programme in Vietnam, starting from the 3rd semester. Similarly, any student of the ATCM-VN programme may attend any two consecutive semesters at the UCN programme in Denmark, starting from the 3rd semester, and providing that the exchange starts from September of any year. UCN and HCMUARC are committed to ensuring equality of the semester structure and overall contents for each semester for the two programmes in order to allow for successful implementation of the above flexible attendance policy.

Students graduated from the ATCM-VN Programme at HCMURAC also receive the right to study the English Master's Degree programmes at Aalborg University: Building Energy Design and Management in the Building Industry.

To ensure that students are able to complete one or more components of the programme in another country than Denmark, the following procedure will be implemented. This procedure is already well-established for the Danish provision of the programme (Additional Documentation, 26.03.15, p. 3).

At the start of any exchange period, a Learning Agreement will be completed and signed before the student's departure. These prior agreements contain a description of how the student is expected to (be able to) obtain the

<sup>&</sup>lt;sup>1</sup> http://ufm.dk/uddannelse-og-institutioner/anerkendelse-og-dokumentation/find-vurderinger/eksamenshaandbogen/lande-og-eksaminer

learning outcome objectives through the professional content and the ECTS-points included in the exchange period. The agreement constitutes an advance merit and is signed by the student, HCMUARC, UCN, as well as the host university for the exchange in question. In the quality assessment of the exchange, the programme will evaluate the individual subjects and their levels, as stated by the host university (Additional Documentation, 26.03.15, p. 3).

Students must obtain 30 ECTS points from their participation in a one-semester exchange. If this is not possible, students must complete a supplementary assignment upon their return from the exchange. The contents of the supplementary assignment will be adjusted to match an individual assessment of which learning outcome objectives, as per the programme curriculum, have not been addressed during the exchange. Furthermore, quality assurance of the students' professional skill levels will be conducted by requiring the student to subsequently attend an examination or deliver a written assignment to the ATCM-VN programme for any subject exam failed during the exchange period abroad (Additional Documentation, 26.03.15, p. 3).

This procedure provides possibilities for the students to enter into exchange periods both in Vietnam and in the surrounding countries in the South-East Asia region, where there are universities within the areas of architecture and construction engineering. UCN has presented formalized collaboration agreements with international partners, with a specific view to allow exchanges to take place in full accordance with the above-mentioned procedure. This implies nine universities around the world, but mainly in Europe. Over time, UCN will work to ensure that these collaboration agreements are also applied to the ATCM-VN programme and UCN is focused on further expanding international relations, especially in the Asian region. HCMUARC also has relevant international relations to universities (Appendices 12 and 23).

The Accreditation Panel finds that it has been made possible for the students to stay abroad without prolonging the overall time of study.

# Criterion 4: Knowledge base

The programme is based on knowledge of vocational or professional activities, development work and applied research.

The applicant must account for and document that

- the programme is continuously based on new knowledge of core trends within the employment areas at which the programme aims,
- the programme is continuously based on new knowledge of relevant development work and current results from research fields that are of relevance for the programme's subject areas.

## Assessment

Compliance with the criterion is satisfactory.

The panel finds that the programme will be continuously based on new knowledge of relevant development work and current results from research fields that are of relevance for the programme's subject areas. The Accreditation Panel recognises that the knowledge will be acquired from the Danish programme and through the Advisory Board. The panel finds this positive because of the limited and not continuous contact between HCMUARC and the labour market in Vietnam.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

The partners argue that together they have the necessary knowledge to make sure that the programme is based on knowledge of vocational or professional activities, development work and applied research. As a classical university, HCMUARC is research-driven for a significant part of its academic development, and has a much broader academic research experience than UCN. As a university college, professional development at UCN is mainly 'profession' (=labour market) driven, with only a relatively recent experience as a research conductor. The UCN profile also implies that any research undertaken must be applied research, i.e. aiming at addressing specific challenges experienced by the target profession of the education programme in question (Application, p. 41).

The ATCM-VN programme will be attached to the Department of Architecture and the Department of Civil Engineering in HCMUARC. In Vietnam HCMUARC is a national leader in research and generation of research-based new knowledge in areas of quality, efficiency, and sustainability of future building and construction designs and methodologies. In addition, HCMUARC plays a significant role in organising conferences, seminars, symposia etc. with focus on topics relevant to architecture and construction. In particular, HCMUARC has a central position in attracting international research representatives and facilitating knowledge transfer from the international academic research environment to the above Vietnamese stakeholders in the sector. That said, HCMARC is characterised by a low degree of formal, institutionalised dialogue with the business sector and the labour market. Instead, the teachers and management at HCMARC enter into many informal dialogues with external parties like local businesses, the Vietnamese Association of Architects etc. (Additional Documentation, 26.03.15, p. 5). To make sure that the programme is continuously based on new knowledge of core trends within the employment areas, the programme in Vietnam will make use of the knowledge that UCN in Aalborg collects. This will be possible through the Boards, where the Programme Coordinators from both Denmark and Vietnam are members.

#### Knowledge of core trends within the employment areas

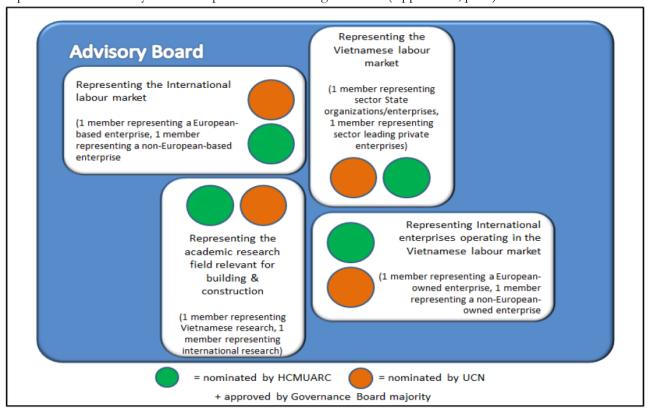
The main channels available for monitoring and identification of new core trends are perceived by the partners as their existing relations with sector representative bodies, development forums, and leading employers (enterprises or organisations/authorities) in Denmark, Vietnam, and internationally. Moreover, the partners' joint

or separate membership of national or international networks is relevant for technological, commercial, and organisational development of the building and construction sector. Furthermore a channel is the ATCM-VN Programme Advisory Board.

HCMARC is characterised by a low degree of formal, institutionalised dialogue with the business sector and the labour market. The partners acknowledge the need to establish a more formal approach to ensure that knowledge from the targeted sectors and labour market are incorporated into the ATCM-VN Programme. Instead the teachers and management of HCMARC enter into many informal dialogues with external parties like local businesses, the Vietnamese Association of Architects, etc. (Additional Documentation, 26.03.15, p. 4). This reflects a market structure in which business sectors are generally not formally represented by organisations and sector-representative bodies, but they are typically represented through the opinions and initiatives of leading enterprises and leading managers within the sector. The main activity with focus on collecting and incorporating knowledge from local businesses is the establishment of an Advisory Board. Another way to ensure knowledge is through the internship contact evaluation (which is described in criterion 7). Additionally, there are HCMUARC's existing relations with sector representative bodies, development forums, and leading employers (enterprises or organisations/authorities) in Vietnam. These existing relations are maintained by a combination of managers, officials and professors/lecturers from HCMUARC (Additional Documentation, 26.03.15, p. 5).

UCN and HCMUARC have agreed to establish an Advisory Board as an external, informal reference group for the joint ATCM-VN programme. The aim of the Advisory Board is to submit and suggest to the partners important vocational, professional, and organisational cultural trends for consideration and/or reflection in the programme.

A profile of the Advisory Board setup is shown in the figure below (Application, p. 29):



The Advisory Board will provide direct input to the Evaluation & Development Board as advisory contributions, or as a panel available for discussion of questions identified by the Evaluation & Development Board or Governance Board. The aim of the Advisory Board is to enable the partners to monitor all three labour markets identified as employment areas, and to establish a channel for qualification and balancing of inputs from each of

these segments, as well as the Vietnamese and international academic research environment relevant for the building and construction sector. All Advisory Board members are nominated by one of the partners and approved by both partners through the Governance Board. The Advisory Board is to convene at least twice annually in Ho Chi Minh City and/or by video conference.

The boards have a key role in making sure that new knowledge is generated and accepted for adoption into the programme. Each Board has the responsibility to ensure that new knowledge is generated and accepted for adoption into the programme as per the above process for the relevant lecturers and other staff involved in the operation of the programme. The organisational setup agreed between the partners is to support the programme joint decision-making and problem-solving strategic choices, evaluation, development, commercial management, pedagogics/didactics, administration, and other issues. For consideration, discussion, and adoption of new core trends into the programme, the Advisory Board will be the external contributor of inspiration and advice, representing all three targeted labour markets/segments, as well as the relevant academic research fields. Internally identified core trends from one or more employment areas or labour markets may be fed into any of the Boards by the identifying partner, depending on the nature of the trend. If verified and acknowledged by the Board in question, it will be passed on to the Evaluation & Development Board for adoption to the programme or moved to the Governance Board (strategic level). Issues, which do not require joint action from the partners, but may be adopted by one partner alone, can be referred from their first Board of consideration directly to the UCN or HCMUARC Programme Coordinator, as relevant.

Furthermore to make sure that the programme is continuously based on new knowledge of core trends within the employment areas, the programme in Vietnam will make use of the knowledge collected by UCN in Aalborg. This is possible through the Boards, where the coordinators from both Denmark and Vietnam are members.

UCN enjoys several established relations with sector representative bodies, inherent within the Danish education system, which are characterised by a high degree of institutional sector representation. Notable among these are:

- The national and regional education councils for the building and construction sector, with whom UCN is
  involved in continuous dialogue on the sector trends and sector requests for updates to the ATCM
  programme.
- The working committees of the Danish providers of the ATCM programme responsible for updating the national part of the ATCM programme curriculum, taking into account new and emergent sector needs.
- The Confederation of Danish Industry and the education committees of national trade unions, who organise a variety of meetings, themed events, analysis work etc. to identify future skills and HR investment needs in the building and construction sector. UCN is a frequent participant or contributor to these activities.
- The Ministry of Higher Education & Science, which also organises various conferences, analyses or working
  groups for identification of future education needs. UCN is regularly called upon to participate in these
  activities.

In addition, UCN participates in a wide range of development groups or projects initiated by the public sector stakeholders of the Region of Northern Denmark, as well as groups of enterprises representing the building and construction sector. Among these is the regional SmartCity project, investigating future solutions for urban development.

UCN also organises regular events for the building and construction business sector in Denmark, such as Digital Days (annually), which is a four-day workshop-based showcase event for digital building and construction processes, primarily focusing on Building Information Modelling (BIM) and other IT applications, and other themes supporting digital building processes.

UCN is a member of the following networks:

- Center for Concrete Education, which is a network under the SmartCity DK project.
- Sustainovation, which is hosted by UCN, and is a business network for development and sharing of new
  knowledge, sustainable solutions and practices for building and construction, with a strong focus on energy
  optimization of buildings.

The Accreditation Panel notes that contact between HCMUARC and the labour market is limited and not continuously based. However, the Panel recognises that the programme will be continuously based on new knowledge of core trends within the employment areas at which the programme aims, which it acquires from the Danish programme and through the Advisory Board. The Panel has made the assessment that the knowledge from the Danish programme is relevant for the programme in Vietnam.

#### Knowledge of development work and applied research

The UCN Technology Department responsible for the ATCM programme has worked on the implementation of the UCN FoU Applied Research Strategy for 2013-18, as well as programme-specific initiatives. This has resulted in the definition of a series of specific focus areas (themes) for the research and development activities of the ATCM programme. These themes are:

- Energy & Sustainability
- Building Information Modelling (BIM) & IT
- Management
- Innovation
- Pedagogics
- Industrialization

The strategy has resulted in a number of specific projects or sector-related development activities being identified, implemented, and reported.

The knowledge generation activities of HCMUARC comprise dedicated scientific research within architecture, construction engineering, urban planning and a host of related subjects. As the formally appointed institution of higher education for the Ministry of Construction of the Socialist Republic of Vietnam, the Ho Chi Minh City University of Architecture is a national leader in research and generation of research-based new knowledge in areas of relevance for the Ministry of Construction, i.e. quality, efficiency, and sustainability of future building and construction designs and methodologies.

In addition, HCMUARC plays a significant role (on behalf of the architecture and construction business sector, the Ministry of Construction, the Ministry of Higher Education, and the academic community in Vietnam) in organising conferences, seminars, symposia etc. with focus on topics relevant to architecture and construction. In particular, HCMUARC has a central position in attracting international research representatives and facilitating knowledge transfer from the international academic research environment to the above Vietnamese stakeholders in the sector.

The programme will utilise the existing 18 lecturers and professors of the Department of Architecture and Department of Civil Engineering, who all have MA degrees in Environmental Design, in Architecture, in Science of Architecture, Urbanism and Building Sciences, in Civil Engineering etc. Seven hold Ph.D. degrees issued by international universities (Application, p. 39).

To make sure that knowledge is shared, the partners have made a joint Ph.D. group. The partners have established a joint Ph.D. team, with the objective of developing new knowledge of specific relevance to the ATCM-VN programme and the partner institutions providing this programme. The Ph.D. team has been established with initially four members: two Vietnamese and two Danish Ph.D. researchers. All members have been contracted by UCN for their contributions to the team and the identified key themes of knowledge generation at which the team effort is primarily directed. The themes in question are 'Energy & Sustainability' and 'Building Information Modelling (BIM) & IT' – and these themes will constitute the main framework for the research projects and publications to be performed by the Ph.D. team in its initial form.

Both Vietnamese team members are enrolled at the Ho Chi Minh City University of Architecture and become part of the research environment at HCMUARC for their Ph.D. research. Similarly, the Danish team members are enrolled at the Aalborg University (AAU) for their research activities. All team members will receive Ph.D. counselling from their respective universities (Application, p. 33).

Four Ph.D. researchers will assign 50 % of their time to mapping existing knowledge and development of research-based knowledge specifically for use in the delivery of the programme and related programmes at both partners' institutions.

The Boards also have an important role here in ensuring integration of new knowledge into the programme.

Any outcome of a research/development/experimentation process conducted by UCN, HCMUARC or as a joint activity – and deemed relevant for the programme - may be presented by the partner responsible for the activity to the relevant Board for consideration and integration into the programme.

As a general rule, knowledge issues with primarily potential perspectives for the contents of the ATCM-VN programme will be presented to the Evaluation & Development Board. Knowledge issues with (primarily) potential perspectives for the pedagogics or practical delivery of existing professional elements of the ATCM-VN programme will be presented to the Tuition Board. Knowledge issues with potential perspectives for the overall structure of the ATCM-VN programme or its position towards the building and construction sectors in the three target labour markets will be presented to the two coordinators (UCN and HCMUARC) for the programme, with a view to joint presentation to the Governance Board (Application, p. 35).

Once a year, HCMUARC will host a 'New Knowledge' workshop. The workshop is for lecturers and other staff with a view to sharing and disseminating new professional, pedagogical, and sector-relevant knowledge acquired. The workshops will create a structure for how knowledge is presented between the partners, and are intended to gradually establish a mutually known 'routine' for how to present research results and other new knowledge within the partnership - in order to create mutual value in the partnership (Application, p. 35).

To systematically share publications, both the partners are committed to the establishment of a mutually accessible e-library of publications by partner staff of relevant research and development activities undertaken by each partner. Also, each partner will notify the Programme Coordinator from the other institution about new publications added to the library. To maximize the value and utilization of the e-library, both partners will work towards expanding the percentage of their relevant research publications provided in English.

With regard to monitoring and including results from external research and development work that do not involve any of the partners, the Task Forces will have an important role. These are same two Task Forces mentioned at Criterion 1. Each Task Force consists of five members, directly involved in the development and tuition of relevant programmes with the institution. Both Task Forces will be responsible for monitoring the inflow of new research and development-based knowledge from external sources and environments and for identifying items of specific relevance to the programme. Identified items will be fed into the programme through a presentation to the most relevant of the joint Boards, inclusion into partner workshops on new knowledge, or sharing of publications though the joint e-library.

The five Task Force members from UCN have 20 % of their time assigned for research and development activities. All members of the Task Force must base their choice and focus of research and development activities on considerations of relevance for the programme. The five Task Force members from HCMAURC have varying degrees of assigned time for research and development activities. Estimated total resources assigned are equal to one full-time position, which is similar to the resource allocation of UCN (Application, p. 36).

The Accreditation Panel finds that the programme will be continuously based on new knowledge of relevant development work and current results from research fields that are of relevance for the programme's subject areas. In particular, the Panel finds the Ph.D. team positive.

## Criterion 5: Academic environment

The provision of the programme is supported by a sufficiently strong academic environment.

The applicant must account for and document that

- a relevant academic environment is already in place at the place of local provision in the form of related programmes, or
- a plan is already in place which renders it likely that a sufficiently strong academic environment can and will be established.

## Assessment

Compliance with the criterion is satisfactory.

The Accreditation Panel recognises that there are no closely related or comparable programmes in English to the ATCM-VN program proposed by UCN. However, the Panel finds that there is a relevant academic environment through the international co-operation programmes for combined degrees and through HCMUARC international partners. The Accreditation Panel has looked at all 18 CV's and finds the lecturers and professors have relevant qualifications for the programme. The Accreditation Panel finds that UCN has described and provided reasons for the goals and plans set up for the development of the academic environment.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

#### Related education programmes at HCMUARC

The Departments of HCMUARC include the Dept. of Architecture, the Dept. of Planning, the Dept. of Construction, the Dept. of Fine Arts, the Dept. of Infrastructure Engineering, the Dept. of Interior-Exterior Design, the Dept. of Basic Sciences, and the Dept. of HCM Ideology and Leninism.

HCMUARC delivers graduate programmes within Architecture, Urban and Rural Planning, Urban Design, Civil and Industrial Engineering, Infrastructure Engineering, Fine Arts, and Interior Design. The programme will be established in HCMUARC with its own management, but affiliated to the Department of Architecture and the Department of Civil Engineering, drawing on the academic resources of both Departments.

HCMUARC does not provide any full education programmes in English. However, for several years the university has operated international co-operation programmes for combined degrees in English. Active collaboration for combined degree programmes comprises:

- Joint Advanced Academic Programme for Urban Design (undergraduate level)
  3 study years in Vietnam + 1 year in Belgium in collaboration with Katholike University in Leuven-Belgium.
- Joint Academic Programmes for Industrial Design (undergraduate level)
  2 study years in Vietnam + 2 years in Australia in collaboration with Swinburne University, Australia.
- Joint Master Degree top- up Programme in Urban Management (PM-UM)
  2 semesters in Vietnam + 1 semester in Thailand in collaboration with the Asian Institute of Technology
  (AIT) Faculty of Environment Resource Development (Thailand).

HCMUARC is furthermore engaged in agreement-based international research and knowledge-exchange cooperation with the following partners:

 École Nationale Supérieure Architecture Grenoble (France) with focus on student and academic staff exchange

- Institute for Housing and Urban Development Studies (IHS) of the Erasmus University, Rotterdam, (the Netherlands) with focus on exchange programmes and joint research activities
- The Royal Institute of British Architects (RIBA) with focus on collaboration on joint education activities, research and professional service links
- Department of Geography of the University of Hamburg with focus on faculty, staff, and student exchanges, collaborative research activities, exchange of academic material, and joint conferences/seminars

The Accreditation Panel recognises that there are related programmes, but none in the same language. The Panel finds that there is a relevant academic environment through the international cooperation programmes for combined degrees and through HCMUARC international partners.

#### The teacher's qualifications

The ATCM-VN programme will utilize 18 existing English-speaking lecturers and professors from the Department of Architecture and Department of Civil Engineering. All 18 key staff profiles have international academic education backgrounds, 15 from English-speaking academic environments. Seven hold Ph.D. degrees issued by international universities. In addition to the above key staff, HCMUARC has at its disposal a large and diverse palette of other lecturers, assistant professors, assistants and contracted external lecturers, who will be able to provide specific inputs to the delivery of the programme under the guidance of the key staff and the HCMUARC Task Force for organisation of the programme (Application, p. 39).

The qualifications of the 18 lecturers and professors include MA in Environmental Design, MA in Architecture, MA in Science of Architecture, Urbanism and Building Sciences, MSC in Civil Engineering etc. from universities in the UK, the Netherlands, Germany, Vietnam, Ireland, Belgium etc. Some of the lecturers and professors have published at the Oxford Brookes. The seven Ph.D. degrees are in Architecture (Environmental Design), in Built Environment, Civil Engineering, and Structural Engineering from universities in the UK, Vietnam, the USA, Australia, Japan, and South Korea.

All the 18 lecturers and professors have English qualifications, and some of them have completed English tests (IELTS, CERF, TOEIC). However, only three of the professors have teaching experience in English.

The Framework Agreement between the two partners states that the Tuition Board has to review and approve the teaching staff. The Agreement also states four criteria which will set measurable standards required for teaching staff members:

- ability to conduct education in professional English;
- understanding of the building & construction sector on an international level;
- skills in developing and implementing a dynamic education process using a variety of pedagogical approaches, learning frameworks, and methods of student interaction mirroring real-world working processes in enterprises
- specific professional skills within the topic delivered, and its connection to other topics in the programme.

  (Additional Documentation, 23.04.15, p. 8)

Both partners are represented in the Tuition Board, so this process makes sure, that both partners approve the teaching staff.

The approval of teaching staff's ability to conduct education in professional English will include two steps. The first step will be that each appointed staff member from HCMUARC or UCN (unless clearly proven in advance to be fluent in written and oral English due to education background, work experience, or nationality) will undergo an English Proficiency test and must achieve a min. test completion score of/equivalent to IELTS level 6.5. The second step will be that each appointed staff member must provide a supervised lecture in English on a subject relevant to the ATCM-VN Programme to an audience of ATCM students or a similar target group. The lecture must include both an oral presentation and the direction of a class plenary discussion with participants. Supervision will be carried out by one or more of the Tuition Board members from both sides and the two

Programme Coordinators (by attending the lecture or monitoring of the lecture through video link) (Additional Documentation, 23.04.15, p. 8).

The Accreditation Panel has looked at all 18 CVs and finds the lecturers and professors have relevant qualifications for the programme. The panel sees it as a weakness that so few have teaching experience in English, but the panel finds it positive, that the Tuition Board has to review and approve the teaching staff.

#### Goals and plans to developing of an academic environment

Apart from the involvement of external inputs to the academic environment of the ATCM-VN programme, a number of initiatives have been planned between the partners to establish synergy between the Vietnamese and Danish experience and learning approach. The initiatives aim at exchanging existing knowledge and experience (professional and pedagogical) between HCMUARC and UCN staff, as well as creating mutual inspiration from exposure to tuition/research/project experience and traditions in Vietnam and Denmark, respectively.

At least 10 HCMUARC key staff profiles are planned to conduct extensive study visits of min. 2 months' duration to the English programme in Aalborg. The visit will be during the period of gradual ATCM programme semester transfers (2015-2018) before the first delivery of each similar semester at the ATCM-VN programme. During the study visits, the lecturers and professors will work with their UCN counterparts to interpret the Danish learning approach and team-based project work/theory inputs interaction for delivery in a Vietnamese learning environment (Application, p. 40).

To encourage a good learning environment for the students, the partners have agreed to establish a joint "Code of Good Learning Environment Practice". The code is to function as mutual guidelines and indicators of the requirements of a good learning environment. The idea is to secure a joint understanding among all involved teaching staff as well as a tool to create joint direction in the standards pursued by the programme (Additional Documentation, 23.04.15, p. 7).

Also all four members of the joint Vietnamese-Danish Ph.D. team are planned to provide active tuition inputs to the ATCM-VN programme.

The Accreditation Panel finds that UCN has described and provided reasons for the goals and plans set up for the development of the academic environment.

## Criterion 6: Facilities and resources

The physical facilities and material resources at the place of local provision are sufficient for the programme to be provided in accordance with the goals for learning outcomes.

The applicant must account for and document

- which facilities and resources are necessary to enable students to achieve the goals for learning outcomes (this could e.g. include a library, IT equipment, teaching rooms, equipment, materials and tools),
- that these facilities and resources are present at the place of local provision. If not, an appropriate plan for how these will be provided must be presented.

## Assessment

Compliance with the criterion is satisfactory.

The Accreditation Panel finds the described facilities and resources relevant for the programme and finds it positive that the partners have made a plan for how get the facilities and resources they do not already have.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

#### Facilities and resources that are significant for the programme

UCN has made a list that shows all the facilities and resources which are considered necessary to be available for students on the ATCM-VN programme, in order for the students to be able to complete their studies and achieve the learning outcome goals. This list conforms with the existing Danish programme regulations, since specific regulations for the ATCM-VN programme are still under development. The description is based on the facilities and resources which are used on the ATCM programme in Denmark, and which are considered necessary for an educational learning environment in Vietnam as well (Application, p. 43).

All physical and material resources such as library, auditorium, teaching facilities, etc. are present at the HCMUARC campus premises where the programme will be taught. The premises are designed as multi-flexible room units, which can be divided into smaller units, arranged as architect studios, workshops, etc.

HCMUARC will supply and maintain servers, internet connection, and routers for student web access. Students on the programme will gain access to these facilities upon enrolment to the programme. IT servers and network functions are already present at the campus through the setup established for the adjacent, similar Vietnamese programmes in Architecture and Construction Engineering as described in Criterion 5.

For the ATCM-VN programme, UCN supplies the IT specifications with regard to server capacity, and possibly network structure/setup, based on experience from student requirements at the Danish ATCM programme. HCMUARC will upgrade existing server and network facilities if necessary to meet these requirements. The students will bring their own laptops incl. software. Required computer specifications and relevant software installations are listed in Appendix 24.

Some facilities are not yet available on the campus. The facilities that are not available on the campus at present are for printing and plotting of documents, drawings, calculations, etc. The current student practice at HCMUARC is to use the variety of small printing and plotting service shops located next to the university. The partners have drawn up a plan to make sure that all necessary resources are available when the programme starts. The list with facilities and resources which are considered necessary shows who is responsible to provide each thing. The remaining items from the list will be agreed between the partners before the planned launch of the ATCM-VN programme. The discussions will follow the timetable shown in the Application on page 45. This

shows what the partners have to discuss and deadlines for when they have to agree on a solution and finally when a solution has to be effectuated (Application, p. 45)
The Accreditation Panel finds the described facilities and resources relevant for the programme and finds that the partners have made a plan for how get the facilities and resources they do not already have.

# Criterion 7: Quality assurance

Systematic and continuous efforts must be made to assure and develop the quality of the activities and results of the local provision of the programme.

The applicant must account for and document that the institution systematically carries out activities aimed at quality assurance and development, that the applicant will involve external and internal stakeholders, and that the quality of the local provision of the programme will be assured as part of this process.

## Assessment

Compliance with the criterion is satisfactory.

The Accreditation Panel finds that UCN has described and documented the quality assurance of the ATCM-VN programme. The "Supplement Agreement 1 Re. Quality Assurance and Evaluation Procedures of the ATCM Programme" which clarifies who is to be responsible for the different parts of the implementation of the quality work, how the different parts of the quality work are to be carried out systematically, what information on programme quality will be collected on a continuous basis, and how often it will be repeated. The supplement agreement stipulates the quality assurance activities which will be carried out annually in a Quality Report in relation to the programme.

More detailed assessment

The overall assessment of the criterion is based on an assessment of the following conditions:

#### Quality assurance of the ATCM-VN programme

UCN has described how activities aimed at quality assurance and development systematically and continuously will be carried out in relation to the daily execution of the programme. This procedure is an adapted version of UCN Quality Procedure. The partners have prepared: "Supplement Agreement 1 Re. Quality Assurance and Evaluation Procedures of the ATCM Programme" (hereafter: the supplement agreement) (Appendix 3). The supplement agreement stipulates the quality assurance activities which will be carried out annually in a Quality Report in relation to the programme. The set up specified in the supplement agreement will be assessed, and developed when needed by the Evaluation and Development Board. The Board will do so when setting goals for and planning the quality assurance activities for the year to come.

For the ATCM-VN Programme, the quality procedure will consist of:

- a) Collection of Management Information as per the enclosed Management Information Matrix (Additional Documentation, 23.04.15, Appendix 1: Management Information Matrix). This data collection will comprise ongoing data monitoring/updating tasks, as well as half-year and annual status compilations. In addition, contributions to the Management Information will be provided from the ongoing evaluation procedures as described in Supplementary Agreement 1, as well as the various parts of the dialogue with employers.
- b) Gathering of the Management Information into an annual Quality Report for the ATCM-VN Programme. The Management Information includes eight Quality Objectives which are grouped into four elements: 1) Recruitment and Graduation, 2) Education Programme Development, 3) Education Programme Implementation and 4) Valuable Graduates (Additional Documentation, 23.04.15, Appendix 2: Quality Report template).

UCN is responsible for quality assurance of the ATCM-VN Programme. The UCN Rector (as member of the Governance Board) will receive the annual Quality Report incl. the full Management Information as a basis for

strategic decisions, quality assurance and continuous quality development of the programme in accordance with the UCN Quality Procedure (Additional Documentation, 23.04.15., p. 2).

The two Coordinators are responsible for gathering information for the Management Information, and analysis of this information for compilation into the annual Quality Report. The Coordinators will also draw up the annual Quality Report (Additional Documentation, 23.04.15., p. 2).

#### The quality assurance activities

To plan, implement and execute quality assurance activities together with the daily execution of the ATCM-VN programme at the local provision in Vietnam, the partners have divided the responsibility for quality assurance activities between the parties as specified in the supplement agreement (Appendix 3).

The responsibility is divided into four different processes related to the quality assurance activities:

**1. Plan:** This process involves developing templates for the content in the different survey evaluations and at least once a year assessing the templates and adjusting if needed.

HCMUARC and UCN have a shared responsibility which will be organised through the Evaluation and Development Board. The establishment of this Board enables UCN to have a close cooperation with HCMUARC regarding the type and content of the quality assurance activities – and to continuously maintain an insight into results of the different activities and actions taken on the basis of these results.

- **2. Do**: This process is the execution of the different evaluation methods. HCMUARC and UCN have a shared responsibility, as will be specified in a detailed agreement.
- **3. Evaluate:** This process involves organising follow-up meetings and monitoring response rates. Furthermore it is to collect survey results in a report.

  HCMUARC is responsible for the evaluation process. The UCN Global Office will provide

support to HCMUARC in the phase to implement the ATCM-VN Programme.

**4. Act**: This process involves holding follow-up meetings, acting on the basis of survey evaluation results and implementing any adjustment this may lead to. Furthermore, the process involves

documenting any adjustments in a plan of actions.

HCMUARC is the responsible for acting when results indicate a need. The plan of adjustments is to be transferred to UCN.

The supplement agreement describes how the quality assurance activities are systematically carried out for quality assurance and development of the ATCM-VN programme.

- Mid-term evaluation
- Programme evaluation
- Internship contact evaluation
- Student internship evaluation

These activities are all survey evaluations and they will involve both external and internal stakeholders:

## Internal stakeholders

Internal stakeholders are asked to assess whether the programme provides optimal conditions for the students to attain the goals for learning outcomes of the programme and whether the students attain the goals for learning outcomes of the programme.

In every situation involving exams and tests, teachers will assess whether the students attain the goals for learning outcomes related to the programme. From the institutional section of the Danish ATCM Curriculum

(Appendix 18) it is apparent which forms of exams are in use throughout the ATCM programme; this will also apply to the ATCM-VN programme.

Through different types of evaluations at specific points in time, students are asked to assess the programme. There are three specifies types of evaluations where students assess different elements of the ATCM-VN programme:

#### Mid-term evaluation:

A student assessment of how well the academic level, the pedagogical quality, facilities and resources, and the organisation of the term supports the student's opportunities for attaining the term goals for learning outcomes. The evaluation is carried out in the middle of each semester.

## Student internship evaluation:

A student assessment of how well the internship supports the student's opportunities for attaining the internship goals for learning outcomes – and in relation hereto – goals for benefits of learning from external partners. It is conducted among the students at the 6th semester after they have completed their internship.

## Programme evaluation:

A student assessment of how well elements in the ATCM-VN programme have supported the student's opportunities for attaining the programme goals for learning outcomes. It is carried out as a student evaluation of the programme as a whole, conducted in relation to graduation.

#### External stakeholders

External stakeholders will be involved in quality assurance work as described below:

External examiners will evaluate whether the students attain the goals for learning outcomes related to the ATCM-VN programme. From the institutional section of the curriculum it is apparent which examinations are assessed by an external examiner (Appendix 18). All external examiners are appointed in co-ordination between UCN and the Danish Board of External Examiners, in accordance with current, valid agreements on appointment procedure between UCN and the Board. Therefore, the external examiners will be appointed either from among the existing network of external examiners under the Danish Board of External Examiners or from among suitable professional and educational experts based in Vietnam or South-East Asia. The latter will be selected on the basis of the above appointment procedure and co-ordination between UCN and the Danish Board of External Examiners (Additional Documentation, 26.03.15, p. 6). All exams conducted for the ATCM-VN programme will be subject to the same quality assurance activities as applied to the Danish provision of the programme.

UCN will work with the Danish Board of External Examiners to ensure that the appointed external examiners have the necessary knowledge of the local provision of the programme to enable them to fulfil the role of external examiner.

The external student contact person from the placement company will be involved through an internship contact evaluation. The contact person will be asked to assess the student's skills and the usability of these in the entity. Additionally, the contact person will be asked questions regarding the need for supplementary skills in relation to adapting the ATCM-VN programme to the labour market.

When the programme has been implemented and relevant stakeholder relationships have evolved, future employers, academic experts and other relevant stakeholders will be involved through the Advisory Board. The purpose of the Advisory Board will be to provide inspiration and counselling on the programme academic basis and market relevance of the programme content.

#### Use of knowledge collected

All results from the above-mentioned activities will be assessed and actions arising from the assessment of the knowledge collected will be planned with the purpose of improving the quality of the programme. All quality information will be compiled into the annual Quality Report.

The annual Quality Report will be reviewed by the Governance Board with a view to:

- Commenting on the Management Information provided and formulating conclusions and decisions on the current status for quality achievement
- Setting targets for the Quality Objectives of the next year
- Defining and initiating action plans for Quality Development for specific targets in the Management Information Matrix.

The Tuition Board and the Administration Board are responsible for reporting identified quality issues of relevance to the eight Quality Objectives to the two Programme Coordinators.

The Evaluation and Development Board is responsible for carrying out all activities included in the Quality Assurance and Evaluation procedure described in Supplementary Agreement 1 to the Framework Agreement. These activities include analysing and summarising evaluation inputs received and providing this data and conclusions to the Programme Coordinators for inclusion into the Management Information compilation and the annual Quality Report.

All in all the Governance Board will be responsible for analysing the annual Quality Report and Management Information as a basis for setting targets and action plans for the coming year. The Programme Coordinators will be responsible for analysing data and feedback (from employers and students) to generate the qualitative parts of the Management Information for the annual Quality Report and they will assess whether any issues must be resolved quickly/on the operational level.

The Evaluation and Development Board has the specific task of conducting, and analysing the response to all evaluation activities included in the agreed Quality Assurance and Evaluation procedure for the programme. The conclusions of the Board will be provided for the Programme Coordinators as part of the data sources contributing to the Management Information.

The Accreditation Panel finds that UCN has described and documented the quality assurance of the ATCM-VN Programme. The panel notes that the Governance Board and the Programme Coordinators are central participants in assuring and developing the quality of the activities and results of the Programme. They are responsible for using the management information inputs to generate solutions, targets and actions which the panel finds necessary to secure the quality of the programme on a day-to-day basis. Furthermore the panel finds that the Governance Board, which includes the UCN Rector, is able to secure the programme on an annual, strategic level.

## About the accreditation

## Legal basis

An accreditation assessment of a local provision is a professional assessment of whether the local provision fulfils the predefined criteria. The accreditation assessment is based on the criteria for a programme's quality and relevance that are stipulated in the Executive Order on accreditation and approval of academy profession programmes and professional bachelor's programmes etc., no. 691 of 30 June 2009, Annex 1: "Criteria for the quality of new local provision of academy profession programmes, professional bachelor's programmes, adult academy profession degree programmes (VVU) and diploma programmes abroad".

## Method and process

The accreditation process is based on methodological components that are internationally recognised and on European standards and guidelines for quality assurance of higher education study programmes. Central to the accreditation process is that the educational institution submits written documentation of compliance with the criteria, an accreditation panel assesses this documentation, and an accreditation report is written and published.

The Danish Accreditation Institution has planned the accreditation process so as to ensure transparency and to provide solid documentation on which the accreditation panel can base its assessment.

Below is a brief outline of the process. A more detailed description of the process can be found in the Danish Accreditation Institution's *Guide to programme accreditation - Local provision abroad of Danish programmes of vocationally oriented higher education* available at <a href="https://www.akkr.dk">www.akkr.dk</a>.

- The educational institution has been invited to a preliminary information meeting about the accreditation.
- The educational institution has submitted its application and annexes documenting its compliance with the criteria. The requirements regarding written documentation are listed in *Guide to programme accreditation Local provision abroad of Danish programmes of vocationally oriented higher education*.
- The accreditation panel and the Danish Accreditation Institution have analysed the materials on the basis of the criteria stipulated for accreditation of new programmes and provision, and have requested that the educational institution submits supplementary documentation regarding any unclear matters.
- The Danish Accreditation Institution has prepared an accreditation report on the basis of the written material submitted by the educational institution and the panel's analysis and assessment of this material. This report has been approved by the accreditation panel.
- The report has been subject to an (administrative) hearing at the educational institution.
- The Danish Accreditation Institution has submitted the final accreditation report to the Accreditation Council and has also published the report at <a href="https://www.akkr.dk">www.akkr.dk</a>. The Accreditation Council's positive accreditation or rejection of accreditation is based on the accreditation report.
- The members of the Accreditation Council inform the educational institution and Ministry of Higher Education and Science of their decision.

# Organisation

From the Danish Accreditation Institution Accreditation Officer Mia Holm Andreasen was responsible for all methodological and practical aspects of the accreditation and has prepared this report in collaboration with the panel in cooperation with the Director of Operations Inge Enroth, which has the final responsibility.

# Case-processing

Application received 2<sup>nd</sup> March 2015.

Accreditation report submitted for (administrative) hearing at the educational institution 6 May 2015. The educational institution has submitted a response to the hearing. The response hasn't resulted in chances of the assessment.

Accreditation report processed at Accreditation Council meeting on 26 June 2015.

## Documentation – overview

- Application regarding accreditation of the Danish ATCM BA Degree Programme
- Cover letter ATCM Vietnam
- Basic data about the local provision in Vietnam of the UCN ATCM Programme

## **Appendices**

- 1 Memorandum of Understanding UCN-HCMUARC –June 2013
- 2 Framework Agreement
- 3 Supplement Agreement 1
- 4 Supplement Agreement 2
- 5 Decree no. 73
- 6 CVs of the Partners' joint Ph.D. team
- 7 Extract of Vietnam Culture Profile from the Hofstede Centre
- 8 List of Internship Opportunities Vietnam
- 9 List of Internship Opportunities Singapore and Japan
- 10 Flyer for Promotion of ATCM Internships
- 11 Statements of interest re. ATCM Internships
- 12 HCMUARC list of joint academic activities
- 13 Epinion VN Report on Training Market Fact Finding
- 14 List of relevant UCN research and development projects
- 15 Legal establishment of HCMUARC
- 16 List of relevant HCMUARC scientific projects
- 17 Curriculum for the ATCM Programme\_national section
- 18 Curriculum for the ATCM Programme institutional section
- 19 List of ATCM Programme Elements
- 20 ECTS points distribution
- 21 ATCM in Vietnam programme overview January 2015
- 22 HCMUARC CVs
- 23 HCMUARC collaboration agreements
- 24 Laptop and equipment specifications

#### Additional documentation

- UCN response to additional questions, 26.03.15
- UCN response to request for additional information, 23.04.15
  - o Appendix 1 Management Information Matrix
  - o Appendix 2 Annual Quality Report template