ASIIN Seal

Accreditation Report

Bachelor's Degree Programmes
Informatics
Urban and Regional Planning

Provided by
Universitas Hasanuddin

Version: 18th March 2022

Table of Content

A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for[1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Program Studi Teknik Informatika	Ba Informatics	ASIIN	-	04
Program Studi Perencanaan Wilayah dan Kota	Ba Urban and Regional Planning	ASIIN	-	03

Date of the contract: 04.02.2021 **Submission of the final version of the self-assessment report:** 30.09.2021 **Date of the onsite visit:** 24.-26.11.2021 **at: online**	
Peer panel: Prof. Dr. Rüdiger Reischuk, University Lübeck Prof. Dr. Heribert Vollmer, Leibniz University Hannover Dr.-Ing. Martin Rumberg, Technical University Kaiserslautern Prof. Dipl.-Ing. Martin Weischer, University of Applied Sciences Münster Ikhsan Mauludin, student at University of Gadjah Mada	
Representative of the ASIIN headquarter: Yanna Sumkötter	
Responsible decision-making committee: Accreditation Commission for Degree Programmes	
Criteria used:	

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[1] ASIIN Seal for degree programmes

[2] TC: Technical Committee for the following subject areas: TC 03 - Civil Engineering, Geodesy and Architecture; TC 04 - Informatics/Computer Science

European Standards and Guidelines as of 15.05.2015

ASIIN General Criteria, as of 10.12.2015

Subject-Specific Criteria of Technical Committee 03 – Civil Engineering, Geodesy and Architecture as of 28.09.2012

Subject-Specific Criteria of Technical Committee 04 – Informatics/Computer Science as of 29.03.2018

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Informatics	B.Eng.	- Artificial Intelligence - Robotics - Big Data - Cloud Computing - Internet of Things	6	Full time	-	8 Semesters	146 SKS/ 248.2 ECTS	Annually / 2008
Urban and Regional Planning	B.Eng.	- Urban Planning and Design - Infrastructure and Transportation Planning - Regional, Tourism, and Disaster Mitigation Planning - Housing and Settlement Planning - Waterfront Development and Planning	6	Full time	-	8 Semesters	144 SKS/ 244.8 ECTS	Annually / 2004

For the Bachelor's degree programme Informatics the institution has presented the following profile in the self-assessment report:

"The Bachelor's degree programme in Informatics was established in 2008 under the Faculty of Engineering. The opening of the study programme is based on consideration of the rapid development of information and computer technology, the needs of large industries and job markets, the prospects for the development of a very open forward department and the support of very adequate resources. The fields of informatics engineering studies are no longer limited to matters related to the field of electro, but have formed specialized fields of study such as Computing Everywhere, The Internet of Things, 3D Printing, Advanced, Pervasive and Invisible Analytics, Context-Rich Systems, Smart Machines, Cloud/Client Computing, Software-Defined Applications and Infrastructure, Web-Scale IT and Risk-Based Security and Self-Protection.

The curriculum of the Bachelor's degree programme of Informatics is designed to introduce the core subjects of informatics such as the theoretical informatics, algorithms and data

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[3] EQF = The European Qualifications Framework for lifelong learning

structures, databases and information systems, operating systems, communication systems, computer architecture, programming technology, software engineering and projects with a large element of software engineering.

Thus, the programme provides opportunities for graduates to be able:

- To utilize their informatics knowledge and skills in real life
- To conduct best practice in research and development, that in line with professional and ethical responsibilities
- To hold the life-long learning attitude through either graduate studies, research, practical training and specialized certification, both nationally and/or internationally"

For the <u>Bachelor's degree programme Urban and Regional Planning</u> the institution has presented the following profile in the self-assessment report:

"The Bachelor's degree programme of Urban and Regional Planning was formed in 2004 under the Department of Architecture. The study programme itself has a vision of "To become the leading Urban and Regional Planning Bachelor Degree Study Program in Asia with an insight into the Indonesian Maritime Continent (BMI) in 2028". This vision aims to produce professional scholars who are anticipatory and accommodating to the dynamics of the development of PWK issues and science and technology, changing demands of the world of work, and producing scientific and planning careers in the field of Urban and Regional Planning.

The programme provides opportunities for graduates to be able:

- Mastering theoretical concepts and methodology of urban and regional planning and being able to apply knowledge and skills for problem solving
- Professionally applying advanced methods and technology, especially in the research and planning fields of urban and regional planning characterized by maritime culture and environment
- Having the ability of effective academic communication in oral and writing, having ethical responsibility, integrity and strong commitment, and being able to lead workgroups in the field of urban and regional planning
- Having the ability to develop knowledge both formally and informally, both locally and globally, as well as being able to work independently and collaboratively
- Having the ability as practitioners, especially in the service sector industry of urban and regional planning"

C Peer Report for the ASIIN Seal

1. The Degree Programme: Concept, content & implementation

> **Criterion 1.1 Objectives and learning outcomes of a degree programme (intended qualifications profile)**

Evidence:

- Objective-module-matrices
- Self-Assessment Report
- Study plans of the degree programmes
- Students handbook
- Module descriptions
- Website
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The peers refer to the respective ASIIN Subject-Specific Criteria (SSC) of the Technical Committees 3 (Civil Engineering, Geodesy and Architecture) and 4 (Informatics/Computer Science), respectively, the objective-module-matrices for each degree programme, the matching learning objectives and the modules as a basis for judging whether the intended learning outcomes of the Bachelor's degree programme Informatics and the Bachelor's degree programme Urban and Rgional Planning correspond with the competences as outlined by the SSC. The descriptions of the qualification objectives are comprehensive and include the achieved competencies and possible career opportunities of the graduates. These are made accessible to all stakeholders as they can be found on UNHAS' website.

According to the self-assessment report, graduates of the Informatics degree programme are capable to work in several professions, especially as IT developer, IT academician and IT consultant. The competencies, which must be acquired by each student, are the following:

- IT developer: develops IT based solutions for any real-life problem in the society, either by focusing on a specific programme or application, creating a framework for software development or underlying systems that help trigger and power other programmes. This profile requires a deeper knowledge in Software Engineering methods and processes.
- IT consultant: a technical specialist that focuses on integrating information technology into businesses and showing clients how to use IT more efficiently to help reach objectives and targets. This profile requires a deeper understanding on the basic subjects, such as Information systems. It also benefits from a wider knowledge of IT processes and how all the components of the IT system are interconnected.
- IT academician: academician in the Computer Science/informatics field who will focus to be lecturer or researcher in various higher education and research institutions. Along with a wider knowledge of basics of IT, such as algorithms, data structures, basics of logic and discrete math, this profile also needs the soft skills such as interpersonal communication.

The Intended Learning Outcomes (PLO) of the Bachelor's degree programme Informatics fulfil the Indonesian Qualification Framework (IQF) standard for undergraduate education and are in line with the faculty's mission and vision. The consistency with the university's mission is achieved by producing graduates with strong enthusiasm to learn and master the knowledge of Informatics as well as related topics. UNHAS has formulated eight Intended Learning Outcomes (ILOs), which cover three elements: attitude, knowledge and skills; the latter is divided into generic and specific skills.

Judging from an objectives-matrix that links the eight ILOs to the Subject-Specific Criteria for Bachelor's degree programme Informatics as well as an objective-module-matrix that delineates in which modules students learn the skills purposed in the ILOs, the peers see that the objectives and intended learning outcomes of the Bachelor's degree programme Informatics are suitable to produce qualified graduates.

With regard to the job market perspectives and practical relevance of the field of Informatics, UNHAS states in the SAR that the opening of this degree programme is based on the consideration of the rapid development of information and computer technology, the need of large industries and job markets, the prospects for the development of a very open forward department and the support of adequate resources. The fields of informatics engineering studies are no longer limited to matters related to the field of electro, but have formed specialized fields of study such as Computing Everywhere, The Internet of Things, 3D Printing, Advanced, Pervasive and Invisible Analytics, Context-Rich Systems, Smart Machines, Cloud/Client Computing, Software-Defined Applications and Infrastructure, Web-Scale IT and Risk-Based Security and Self-Protection. Information on graduate placement in the labour market is conducted through a continuous tracer study every five years, yet data

is also regularly added to the study through information gathered on various social network platforms. The peers learn that most of the graduates are employed as software engineers and IT consultants in companies like Telkom Indonesia, one of the oldest telecommunication company worldwide. Others are working as lecturers and are pursuing Master studies. In the discussions with the students, the peers also learn that the students are very confident in finding a job after graduating and that half of them are interested in continuing their studies. UNHAS also offers a consecutive Master's programme in Informatics. Furthermore, the peers acknowledge that there is sufficient support for the students regarding their strategies for finding a suitable career (s. criterion 1.4).

Graduates from the Bachelor's degree programme Urban and Regional Planning are also able to find employment in the government's expertise sector or become a regional or urban planning consultant. In the discussion with the students, the peers learn that most of the graduates will find employment in the government or planning studios but that most of them continue their studies at the consecutive Master's Programme at UNHAS or abroad.

With regard to the objectives and learning outcomes of the study programme Urban and Regional Planning, the peers notice that UNHAS has formulated ten Intended Learning Outcomes (ILOs), which cover three elements: attitude, knowledge and skills; the latter is divided into generic and specific skills. They fulfil the Indonesian Qualification Framework (IQF) standard for undergraduate education and are in line with the faculty's mission and vision. The consistency with the university's mission is achieved by producing graduates with strong enthusiasm to learn and master the knowledge of Urban and Regional Planning as well as related topics.

Judging from an objectives-matrix that links the ten ILOs to the Subject-Specific Criteria for Bachelor's degree programme Urban and Regional Planning as well as an objective-module-matrix that delineates in which modules students learn the skills purposed in the ILOs, the peers see that the objectives and intended learning outcomes of the Bachelor's degree programme Urban and Regional Planning are suitable to produce qualified graduates.

In summary, the auditors are convinced that the intended qualification profiles of the two undergraduate programmes under review allow students to take up an occupation, which corresponds to their qualification. The peers agree that the qualification objectives of all programmes adhere to level 6 of the European Qualification Framework, which relates to Bachelor's programmes, and to the respective ASIIN Subject-Specific Criteria of the Technical Committees 3 and 4, respectively. They aim at the acquisition of subject-specific competences and are generally formulated clearly and precisely.

The peers appreciate that a regular revision process for the objectives, learning outcomes and curricula of the programmes is in place. Every five years, a larger revision takes place that includes internal as well as external stakeholders, while minor changes are made regularly. The students, alumni and representatives of schools and the private sector confirm that they are actively involved in these processes.

Criterion 1.2 Name of the degree programmes

Evidence:

- Self-Assessment Report
- Diploma Supplements

Preliminary assessment and analysis of the peers:

The titles of the degree programmes follow the rules for naming study programmes set by the Indonesian Ministry of Education. The word "Pendidikan" signifies educational degree programmes. The peers hold the opinion that the English translation and the original Indonesian name of the Bachelor's degree programmes Informatics and Urban and Regional Planning correspond with the intended aims and learning outcomes as well as the main course language.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Study plans of the degree programmes
- Curriculum guidebook of the degree programmes
- Academic guidelines
- Module descriptions
- Objective-module-matrices
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The curricula of the degree programmes are designed to comply with the programme objectives and learning outcomes and they are subject to constant revision processes. As such, the curricula are reviewed regularly and commented on by students and teachers as well as by external stakeholders such as alumni or partners from schools and the private

sector. Regular changes are made to ensure that the curricula are up to modern standards. Besides the objectives and learning outcomes defined by UNHAS itself, the curricula also take into account the Indonesian standards of higher education and the Indonesian national qualifications framework as well as the recommendations from industry.

The courses in all degree programmes relate to one of three different categories: mandatory university courses, compulsory specific courses related to the study programme and elective courses. The ratio between these categories is as follows in the two programmes: they feature 14 SKS (see criterion 2.2 for more details) of mandatory university courses, 105 SKS of mandatory specific courses related to the study programme as well as 27 SKS elective courses in the Informatics degree programme and 14 SKS of mandatory university courses, 118 SKS of compulsory specific courses related to the study programme as well as 12 SKS elective courses in the Urban and Regional Planning degree programme. Of the latter, a field work practice makes up 4 SKS in the Informatics degree programme 3 SKS in the Urban and Regional Planning degree programme, the mandatory community service another 4 SKS. The peers learn that the students are quite satisfied with the ratio between the different types of courses, as they can acquire broad knowledge and choose their own focus through the choice of elective modules.

UNHAS has developed a new curriculum for the Informatics degree programme for the academic year 2021/22 which is welcomed by the peers. In the Informatics degree programme, the first five semesters are mostly filled with compulsory university courses as well as specific courses related to the study programme. In these, the students learn the necessary basics in the different areas of informatics, for instance fundamentals of information technology, basic and discrete mathematics, linear algebra, artificial intelligence, formal language and automata theory, software engineering, digital security, probability and statistics as well as web and mobile programming. They also acquire competences in technopreneurship. The elective courses, through which the students can gain further insights in some of these areas, are spread out over semesters 6 to 8. The students have to choose eight electives. The seventh semester also contains the mandatory community service and the fieldwork practice. The students begin to prepare for their thesis in the seventh semester with the course on thesis proposal and write it in the eighth semester.

The students of the Urban and Regional Planning degree programme get an overview of historical aspects of Urban and Regional Planning, data collection, marina socio-cultural study as well as cartography and remote sensing needed for their studies in the first two semesters. Over the course of the first six semesters, they take mandatory courses in the different areas of urban and regional planning, such as infrastructure, spatial and site planning, housing and settlement system, urban and regional economics, ecology of waterfront areas and planning evaluation technique. Besides the theoretical classes, they also acquire

practical competences through studio work in various areas. Students have to successfully complete six studios which build on each other and together form a blue line. The blue line represents the core subjects of the degree programme. All other modules support the blue line by tailoring their content to the studios' learning outcomes. Moreover, in semesters 4 to 6, the students can choose from a range of electives covering advanced and specialised fields of urban and regional planning. The mandatory elements of fieldwork practice and community service are located in the firth and seventh semester. The students prepare their undergraduate thesis, which is written in the final semester, through the modules "Scientific Writing Study" in semester 2 and finally "Research LBE studio" in semester 6 by drafting a topic and handing in a proposal.

Overall, the peers are satisfied with the curricula of the two programmes. However, the peers note that the curriculum of the Urban and Regional Planning degree programme is thematically very broad spread. There are a lot of different courses offered, which makes it difficult to understand whether and to what extent students can specialize or deepen their knowledge in an area. From the programme coordinators and the teaching staff, they learn that students must complete six studios which form the blue line and are supported by all other modules. The studios build on each other and become more specific as studies progress. Within the framework of five major specialization areas ("Urban Design and Planning", "Waterfront Planning and Development", "Housing and Settlement Planning", "Infrastructure and Transportation Planning" and "Regional-Tourism-and Disaster Mitigation Planning"), the students have the opportunity to choose an area according to their interest during their last semesters. The students are satisfied with these options and welcome the laboratory-based education method. The peers take note of these explanations. However, there is a huge number of single modules which influence the studio work. The influence and the dependencies of these single modules on the studio work are not made sufficiently transparent in order to fully understand how students are able to successfully complete the core modules (studios). As the studios form the blue line and are thus the central part of the studies, the peers propose to strengthen them in terms of workload and credit points. Moreover, in order to strengthen the blue line, the peers suggest to offer more major specialization areas to choose from. As of now, the students can choose between five major specialization areas. Within those, they need to choose four electives. Therefore, it is recommended to make the influence and the dependencies of single modules on the studio work more transparent and to shift credits from the specialized modules to the blue line.

Furthermore, the peers ask about the extent of urban design fundamentals within the single modules in the first semesters of the Urban and Regional Planning degree programme.

The students explain that the site planning studio in the third semester includes urban design aspects. With regard to the fact that the urban and regional planning department emerged from an architecture school and especially as UNHAS is striving to become an international acknowledged university, the peers are of the opinion that modules like for example "Integrated Village Planning", "Development of New Settle Planning", "Introduction to Urban and Regional Planning" should include urban design fundamentals which are treated more profoundly. Therefore, they recommended to strengthen the scope of urban design fundamentals in the first semesters of the programme.

In addition, the peers ask the programme coordinators and the teaching staff of the Informatics degree programme about the extent of fundamental research. They explain that they focus on applied research as research grants are awarded for research projects aimed at the seventeen global sustainable development goals (SDG). Nevertheless, the peers underline that fundamental aspects of Informatics should be taught in more depth, especially with regard to students who want to do a Master's degree and need to deal with these aspects more specifically. Therefore, they recommend to deepen fundamental aspects of Informatics in the curriculum in order to lay the necessary foundation for students who want to pursue further studies. Fundamental aspects like for instance logic, computability, algorithms an complexity could be considered in this context.

Finally, the peers ask the teaching staff of the Informatics degree programme why the module "probability and statistics" is taught at a late stage in the study programme as this module is needed in order to successfully complete modules like for example "digital security". The teaching staff explains that, in the previous curriculum, the module "probability and statistics" was initially taught in the third semester. However, during the last years, they realized that students had difficulties dealing with probabilities in their final project as they studied these aspects at an early stage in their curriculum. Therefore, in the new curriculum, this module has been moved to the fifth semester whereas "digital security" is taught in the fourth semester. However, as the new curriculum has been implemented only a few months ago, the peers recommend to evaluate the sequence of modules in the new curriculum in order to avoid problems due to dependencies, in particular the module "Probability and Statistics" should be taught earlier in the curriculum, for example before the module "Digital Security.

With regard to the internships, the peers learn that the fieldwork practice in companies usually takes 4 to 6 weeks in the Informatics degree programme and 12 weeks in the Urban and Regional Planning degree programme. Through the independent campus programme, which was introduced in 2020, students in all study programmes can expand the duration of their internship until 6 months (see criterion 2.1 for more details). Both are valued by the students as they allow them to apply the skills they learned in the programmes in a real

working environment. The university has established useful guidelines for these internships and every student has one advisor at the company and one at the university to ensure that the work contributes to achieving the programme's learning outcomes. The representatives of the industry are also generally content with the way these internships are organised by UNHAS. However, during the discussion, the industry representatives explain that the 4 to 6 weeks of the mandatory internship in the <u>Informatics degree programme</u> are not sufficient in order to introduce the students fully to the mechanisms of the company and familiarize them with the subject matter. Moreover, it could be helpful for students to be able to have access to a list of participating companies via the integrated information system in order to get a better overview. Therefore, the peers recommended to extend the duration of the mandatory internship outside the university, to establish corresponding regulations and to include internship opportunities in companies via the integrated information system.

Furthermore, the peers discuss with UNHAS the ways in which the students can improve their English proficiency. They learn that in the <u>Informatics degree programme</u>, a specific TOEFL-score is expected as one of the requirements for the students to graduate. Moreover, there are courses to familiarise the students with the subject-specific English vocabulary and expressions. Additionally, English literature is used as can be seen from the literature suggested for the individual modules in the module descriptions. In <u>all study programmes</u>, students have the possibility to join the English study club, which is offered by the Language Centre. Students can obtain English certificates there, for instance by taking the TOEFL ITP, which is expected as one of the requirements for the students to be selected for specific student exchange programmes. The peers welcome the extensive offer to improve the English skills of the students.

Finally, the peers ask how the teaching staff and the industry representatives evaluate the soft skills of the students. They learn that the students from UNHAS are particularly flexible and resilient in many respects: both in terms of competition and in terms of their perseverance. In spite of this, the industry representatives also underline that specific soft skills as the ability to communicate and to publically speak and present in front of an audience, could still be improved. Consequently, the peers recommend to strengthen those skills by providing feedback to students on their performance.

Criterion 1.4 Admission requirements

Evidence:
- Self-Assessment Report
- Academic Guidelines

- Students handbook

- Academic guidelines

- Websites

- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the self-assessment report, admission of new students to UNHAS is possible via different modes of entry (national and local modes). The different modes of entry are designed not only to select the top-quality students from high schools, but also to provide opportunities for high school students from all over Indonesia, especially those from rural areas.

The different modes of entry are:

1. SNMPTN (National Entry Selection of Public Universities), based on academic performance during high school.
2. SBMPTN (Joint Entry Selection of Public Universities), based on a nationwide selection test that is held every year for university candidates.
3. Local admission, these students are selected under special consideration of their education, local origin, social background, achievements in sports or science, and financial means.
4. ADik-3T (Affirmative Track), a special admission track for students who live in the remote and the underdeveloped regions of Indonesia to provide an equal opportunity among society in Indonesia.

For each academic year, the university determines the ratio of students admitted through these four ways. Generally, the number of applications is considerably higher than the number of admitted students. For the academic year 2020/21, there were 3038 applications whereas 108 students were admitted in the Informatics degree programme. In the Urban and Regional Planning degree programme 928 applied for the same academic year, but only 85 were admitted.

The tuition fees for the programmes are determined by the Ministry of Finance based on a proposal from UNHAS. There are different levels for these fees, depending on the parents' income. For students from underprivileged families, there is no tuition fee. Furthermore, there are various options for scholarships that cover the tuition fees.

The admission website informs potential students in great detail about the requirements and the necessary steps to apply for admission into the programmes. Since the rules are based on decrees by the ministry of education and on the university's written regulations,

the peers deem them binding and transparent. They confirm that the admission require-
ments support the students in achieving the intended learning outcomes.

**Final assessment of the peers after the comment of the Higher Education Institution re-
garding criterion 1:**

Criterion 1.3:

The peers appreciate that UNHAS took the recommendations under this criterion into con-
sideration.

With regard to the recommendation to deepen fundamental aspects of Informatics in the
curriculum in order to lay the necessary foundation for students who want to pursue fur-
ther studies, UNHAS states that in the new curriculum of 2021, the degree programme has
deepened the fundamental aspects of Informatics. These fundamental topics are included
into multiple fundamental modules in the earlier semesters. The degree programme strives
to standardize its curriculum internationally by also referring to IEEE-ACM Curriculum
Guidelines for Undergraduate Degree Programs in Computer Science. The fundamental
topics, that also have been suggested by the peers, are included in the new Curriculum as
follows: aspects of Logic are covered in several modules. Basic of Logic is covered in the
early sessions of the "Discrete Math" module. Digital Logic, such as Logic Gates, Truth Ta-
bles and Simplification of Boolean Expression, is covered in the "Digital System" module.
Programming Logic is covered in the "Basic Computer Programming" module and "Algo-
rithm and Data Structures" module. Proving Logic is covered in the early session of the
"Formal Language and Automata" module. Aspects of Computability are also specifically
covered in the "Formal Language and Automata" module. Within the last three sessions of
this module, the following topics are delivered: Turing Machine, Undecidability, Overview
of Computational Complexity and Intractable Problems (Introduction to the P and NP clas-
ses). Aspects of Algorithm Complexity are delivered in detail in two sessions within the "Al-
gorithm and Data Structures" module. An introduction to some advanced concepts of com-
putation complexity, such as the complexity of the P and NP class is given at the last ses-
sions of the "Formal Language and Automata" module. UNHAS provided the corresponding
module descriptions with its response statement. Therefore, the peers consider this rec-
ommendation to be fulfilled.

Regarding the recommendation to evaluate the sequence of modules in the new curricu-
lum of the Informatics degree programme in order to avoid problems due to dependencies,
in particular the module "Probability and Statistics" should be taught earlier in the curricu-
lum, for example before the module "Digital Security, UNHAS explains that based on the
discussions during the online audit regarding the position of the "Probability and Statistics"

module within the Syllabus, the degree programme Informatics agrees with the peers feedback that the module is better provided at the earlier semester. Therefore, the degree programme already updated the syllabus of the new curriculum. The position of the "Probability and Statistics" module within the syllabus has been swapped with the "Artificial Intelligence" module. The "Probability and Statistics" module is moved from the fifth semester to the third semester, while the "Artificial Intelligence" module is moved the opposite direction. This update has been formally approved by the Faculty through the Decree of the Dean of Faculty of Engineering. The peers appreciate the changes of the syllabus and therefore consider the recommendation to be fulfilled.

With regard to the recommendation to extend the duration of the mandatory internship outside the university in the Informatics degree programme, UNHAS explains that in the new curriculum, the internal mandatory internship has been extended from initially 4 - 6 weeks to currently 24 weeks. The statement of the Internship duration is given in the "Standard Operation Procedure for Internship" document which UNHAS provides with its response statement. Moreover, in 2020, the Ministry of Education of Indonesia introduced a new programme called Program Merdeka Belajar (Freedom To Learn Programme, FTLP). This programme encourages all stakeholders of higher education in Indonesia (academic, industry and government) to be linked and provide opportunities for university students to have more comprehensive learning or/and job experiences, in terms of content and duration, outside their institution. This programme allows students to spend up to 6 months in another university or have job experiences in industries. The FTLP programme is adopted by UNHAS and therefore implemented by the Informatics degree programme since 2021. This regulation is included in the Decree of the Rector of UNHA: "Students can take credit points outside the study programme within UNHAS for 1 semester which is equivalent to 20 SKS and outside of UNHAS for 2 semesters which is equivalent to 40 SKS." During the academic year of 2020-2021, there were 50 students of the Informatics degree programme that participated in the "Freedom To Learn Programme". Given these explanations, the peers judge this recommendation to be fulfilled.

With regard to the recommendation to improve the soft skills of the students of both degree programmes, UNHAS states that the Informatics degree programme alsready provides several modules with extensive content of soft skill development. These modules include "Interpersonal Communications", „Enterprise Systems" as well as "IT Business". Aside from these specific modules, most modules in the degree programme Informatics implement either project-based or problem-based learning methods. Within both methods, students practice teamwork and presentation skills. During the assessment, students are given feedback on points such as rhetoric, timing, gestures, eye contact and other presentation skills.

UNHAS provides the rubrics for team or individual presentation as evidence with its response statement. However, as the industry representatives feel that it is absolutely necessary to improve the soft skills of the students and as the Urban and Regional Planning degree programme did not provide any statement with regard to this recommendation, the peers recommend that UNHAS should continue to put effort into improving the soft skills of the students. Therefore, they continue to adhere to the recommendation.

Concerning the recommendation to make the influence and the dependencies of single modules on the studio work more transparent and to shift credits from the specialized modules to the blue line in the Urban and Regional Planning degree programme, UNHAS states that currently, the study programme is not able to change the number of credits for each module, because this change can only be made during the curriculum evaluation process which is scheduled every five years. Yet, UNHAS explains that the effort that can be presently made is to integrate the content and assignments of a single module into the course studio such as completing courses chart. However, as the revision of the modules as well as the change of the number of credits have only been announced for the upcoming curriculum evaluation process and not yet introduced by UNHAS, the peers continue to adhere to the recommendation.

With regard to the recommendation to strengthen the scope of urban design fundamentals in the first semesters of the Urban and Regional Planning degree programme, UNHAS explains that there are 5 main specialization areas in the degree programme which focus on Indonesian Maritime Continent-based planning. The strength of the specialization area exists in each laboratory/studio. However, as UNHAS did not take into consideration the fact that the urban and regional planning department emerged from an architecture school and especially as UNHAS is striving to become an international acknowledged university, the peers are of the opinion that modules like for example "Integrated Village Planning", "Development of New Settle Planning", "Introduction to Urban and Regional Planning" should include urban design fundamentals which are treated more profoundly. Therefore, the peers continue to adhere to their recommendation.

2. The degree programme: structures, methods and implementation

Criterion 2.1 Structure and modules

Evidence:

- Self-Assessment Report

- Study plans of the degree programmes

- Module descriptions

- Objective-Module-Matrices

- Student handbook

- Discussions during the audit

- Partnership agreements with other universities

- Overview of student's mobility

Preliminary assessment and analysis of the peers:

The programmes under review are designed for 4 years and the students need to achieve 146 SKS (which is equivalent to 248,2 ECTS) in the Informatics degree programme and 144 SKS (which is equivalent to 244,8 ECTS) in the Urban and Regional Planning degree programme. Each semester is equivalent to 16 weeks of learning activities, including one week for midterm exams and one week for final exams.

After analysing the module descriptions and the study plans, the peers confirm that all degree programmes under review are divided into modules, and that each module is a sum of coherent teaching and learning units. All programmes contain adequate practical elements and allow the students to define individual focuses through broad ranges of electives. The peers notice that many modules are quite small in terms of credit points and they worry that this might lead to a very high number of exams per semester and consequently to a heavy workload for the students. They learn that this is to some extent countered by the fact that the length of the exams is proportionate to the amount of credit points for the module. The students also emphasise that they consider the workload high but manageable. As the data in the self-assessment report shows, the average length of study is nine to ten semesters and the dropout rates are generally quite low. This indicates that the module structure allows the students to finish their studies in time.

In summary, the peers gain the impression that the choice of modules and the structure of the curriculum ensures that the intended learning outcomes of the respective degree programme can be achieved.

International Mobility

The self-assessment report as well as the discussions make it clear that, while striving to become an international acknowledged university, international recognition is one of UN-HAS' primary goals for the next years. The peers point out that international mobility, with regard to the lecturers as well as to the students, is a key factor in these efforts.

The peers learn that UNHAS already provides some opportunities for students to conduct internships and study semesters abroad. There are cooperation agreements with organisations in over 30 countries worldwide (for instance Australia, Philippines, Vietnam, Switzerland, China, Malaysia, Japan) partly regarding student exchange, partly regarding research collaboration. The university has established its own scholarship for international mobility and moreover manages various external scholarships sponsored by the Indonesian government for example. Students may also apply for additional programmes such as the DAAD (German Academic Exchange Service). Moreover, as part of the government's policy, an independent campus programme has been implemented in 2020. By choosing this programme, students are given the chance to spend one semester in another university or company in Indonesia or abroad. This will make it possible for the students to collect further experience and be better prepared to enter the job market after their studies. Qualifications obtained at other universities in Indonesia or abroad are recognised in line with the courses at UNHAS. The students can best realise such a stay in semesters 3 to 6 or, in case of a shorter stay, during the holidays. As they confirm, there are no problems with credit transfer or the organisation of student mobility.

The peers appreciate the efforts undertaken by the university to foster student mobility and support both faculties in further pursuing this path.

Criterion 2.2 Work load and credits

Evidence:
- Self-Assessment Report
- Study plans of the degree programmes
- Samples of module assessment
- Survey of student satisfaction
- Module descriptions
- Discussions during the audit
- Student handbook

Preliminary assessment and analysis of the peers:

Based on the National Standard of Higher Education of Indonesia, both programmes use a credit point system called SKS, which is regulated as follows:

• 1 CP of teaching covers 50 minutes contact hours + 60 minutes assignment/tutorial + 60 minute of self-studies

• 1 CP of practical work covers 170 minutes

• 1 CP of seminar covers 170 minutes

In comparison to the ECTS credit system, wherein 1 ECTS equals 25-30 hours of students' workload, it is determined that 1 CP is awarded for different amounts of workload, depending on the kind of studies. As such, for lecture sessions, one credit point equals 50 minutes, while one credit point for practical session is awarded for 3 hours of work. The students' workload (contact hours and self studies) is measured in Indonesian credit points (CP), and converted to the European Credit Transfer System (ECTS). According to the legal requirements, an undergraduate programme in Indonesia can have between 144 and 160 SKS, while the actual number is 146 SKS (248,2 ECTS) for the Informatics degree programme and 144 SKS (244,8 ECTS) for the Urban and Regional Planning degree programme.

The workload is spread relatively evenly with each semester containing between 19 and 23 SKS according to the regular study plan. The workload of the last two semesters is markedly reduced to give the students enough time for their theses as well as to already start looking for a job. However, the effective number of credit points that the students may take depends on their average Grade Point Average (GPA), yet the maximum amount of credit points is 24. This mechanism is supposed to ensure that the students can really handle the workload. It also means that theoretically, students can finish their studies in less than 8 semesters, but due to the high workload in general, this is a rather rare phenomenon. The peers confirm that the distinction between classroom work and self-studies is made transparent and is in line with the credits awarded. However, with regard to the distribution of the workload, the peers note that in the module descriptions as well as in the students handbook of the Urban and Regional Planning degree programme, the workload does not match the credit points awarded in the final project. According to UNHAS, the final project is worth 6 SKS. 1 SKS consists in this case of 50 minutes interactive lecture, 50 minutes for tasks and 70 minutes for individual learning. 170 minutes workload per week and 16 meetings per semester result in 2720 minutes or 45.3 hours workload per semester. According to UNHAS, however, the workload in the final project is 1020 hours. The peers ask the programme coordinators about the actual workload. The programme coordinators emphasise that "hours" is a typing error and that 1020 minutes are meant instead. 1020 minutes correspond to 17 hours of workload per semester. As this does not even correspond to 1 SKS,

the peers urge UNHAS to ensure that the workload matches the credit points awarded in the final project of the <u>Urban and Regional Planning degree programme.</u>

UNHAS provides statistical data about the average length of studies and the number of dropouts. According to the data, the average study period of the students from <u>both degree programmes</u> is 9 to 10 semesters. According to the SAR, this is due to all the written examinations and also due to the fact that they have a final thesis or work next to studying. Additionally, they see that almost all students complete the degree programmes as there are only between 0 to 4 students who dropped out of the degree programmes in the last 3 years.

The data verifies that both degree programmes under review can be completed in the expected period.

Criterion 2.3 Teaching methodology

Evidence:

- Photos and videos of laboratories
- Self-Assessment Report
- Module descriptions
- Samples of lecturer evaluation by students
- Websites

Preliminary assessment and analysis of the peers:

The two programmes under review make use of several different educational methods for each course such as interactive lectures, small group discussions, problem-based learning, project-based learning, collaborative learning, simulation and role play, laboratory practical work, computer-based assignments, excursions and final tasks consisting of internship, student community service, seminars, final project and case-study. In the sixth semester, both study programmes additionally adopt laboratory-based education (LBE). Students from the <u>Informatics degree programme</u> are encouraged to join one of the research laboratories in the programme, either the "Artificial Intelligence Laboratory", the "Big Data and Cloud Computing Laboratory" or the "Internet of Things Laboratory". Students who join a research laboratory are expected to participate in the ongoing research collaborating with master and doctoral degree students. Students from the <u>Urban and Regional Planning degree programme</u> can choose from five specialization areas which focus on laboratory-based education: "Urban Design and Planning", "Waterfront Planning and Development", "Housing and Settlement Planning", "Infrastructure and Transportation Planning" and "Regional-

Tourism-and Disaster Mitigation Planning". The LBE results in a bachelor proposal that will be continued in the final project studio.

During the classes, active and interactive teaching methods (e.g. lectures, discussions, reports, presentations, and group work) are applied. UNHAS wants to encourage the students to gain knowledge from different scientific areas and wants to introduce them to research activities. This should ultimately contribute to the transition from a teacher centred to a student centred learning approach. The teaching and learning is supported by a broad range of media, both traditional (books, papers) and online (videos, presentations etc.). In the course of the Covid-19 pandemic, UNHAS has swiftly switched to online learning with videoconferences, recorded videos and other media.

UNHAS introduced an online Learning Management System (SIKOLA) in order to monitor the teaching methodology that is applied and make accessible the various course materials. Therefore, each teacher or professor must upload his or her teaching materials and working procedures on SIKOLA.

Criterion 2.4 Support and assistance

Evidence:
- Self-Assessment Report
- Students handbook
- Discussions during the audit

Preliminary assessment and analysis of the peers:
In order to support students in completing their studies on time with good achievements, the university and the faculty provide academic and personal support and assistance through various means. The offers can be divided into two types: academic support and non-academic supports. Academic advice includes the academic advisors, the Guidance and Counseling Section at UNHAS Hospital, the International Office, the programme coordinators, the Dean and the supervisors for the Bachelor's thesis. Non-academic supports comprises the UNHAS Hospital, the Sports Centre, the Language Centre, the Career Development Centre, the Central Library, computer laboratories, Centre of Technology and student dormitories.

The main contact person for every student is their academic advisor, which is assigned to them in their first semester. An academic advisor shall help them develop an adequate schedule for their studies, choose electives according to their skills and interests and sup-

port them in case of academic and non-academic problems. Each student has the opportunity to meet with their academic advisor, who is also responsible for monitoring their study progress, at least four times per semester. Furthermore, there are supervisors for the thesis, the fieldwork practice and the community service, who give advice on specific issues related to these aspects. At the beginning of each semester, DPA provides direction for the students regarding their study plans, targets to be achieved and strategies for selecting courses. During the semester, GPA monitors the academic progress of the students they guide. At the end of the semester, GPA evaluates the student's achievement under their supervision by checking the GPA that the students achieve. In UNHAS, this mentoring process is supported by the presence of the information system and the Learning Management System (SIKOLA) that facilitates GPA to monitor the academic progress and approval for semester plans as well as the final undergraduate thesis.

The UNHAS Hospital helps and guides students who have individual problems, such as anxiety, depression or other personal or psychological issues. The Career Development Centre offers scholarships, entrepreneurship programmes, student creativity programmes and other similar activities. There are many scholarships offered to students, (e.g. from private companies, the government or other foundations). This includes scholarship for students from low-income families and for those with high academic achievements. New students can attend classes to develop their effective learning and soft skills.

In addition, every student who enrols for the Bachelor's thesis course will be assigned 2 thesis supervisors. The role of the thesis supervisors is to help students to complete their thesis research; they also monitor the progress of the thesis in order to ensure the completion of the thesis in the intended amount of time.

The students confirm towards the peers that they are supervised in the research group during their work on the Bachelor's thesis. There are regular meetings where the students present their results and receive feedback from the other members.

All students at UNHAS have access to the Learning Management System (SIKOLA). By using SIKOLA, lecturers can upload their syllabus and learning materials or modules as well as assignment for students. Through SIKOLA, students can also interact with other students and lecturers.

The peers notice the good and trustful relationship between the students and the teaching staff; there are enough resources available to provide individual assistance, advice and support for all students. The support system helps the students to achieve the intended learning outcomes and to complete their studies successfully and without delay. The students are well informed about the services available to them.

Overall, the peers judge the extensive support system to be one of the strong points of UNHAS.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 2:

Criterion 2.2:

The peers appreciate that UNHAS provides a response to this requirement. UNHAS states that 1020 minutes equals 17 hours of workload per week (not per semester). In this case, the final project in the Urban and Regional Planning degree programme is worth 6 SKS as 6 SKS multiplied by 170 minutes result in 1020 minutes per week. Consequently, 1020 minutes multiplied by 16 weeks result in 16.320 minutes per semester which is equal to 272 hours per semester and 17 hours per week. Therefore, the peers consider this requirement to be fulfilled.

3. Exams: System, concept and organization

Criterion 3 Exams: System, concept and organization

Evidence:
- Self-Assessment Report
- Module descriptions for each degree programme
- Websites
- Academic calendar
- Exam regulations
- Exemplary written exams and final theses

Preliminary assessment and analysis of the peers:
Each course has to determine objectives, which support the achievement of the Programme Learning Outcomes of the respective programme. Accordingly, each course must assess whether all defined learning outcomes stated in the module description have been achieved.

According to the self-assessment Report, quizzes, tests, practical performances, assignments, small projects, reports and presentations are employed to assess the students' achievement of the learning outcomes. At the first meeting of a course, the students are informed about what exactly is required to pass the module. The form and length of each

exam is mentioned in the course descriptions that are available to the students via UNHAS' homepage and the Learning Management System (SIKOLA). It is common to hold small quizzes every two or three weeks, but there are generally no unscheduled tests. The students are informed about mid-term and final exams via the academic calendar. The final grade of each module is calculated based on the score of these individual kinds of assessment. The exact formula is given in the module handbook. UNHAS uses a grading system with the grades A, A-, B+, B, B-, C+, C, D and E, where a D (equivalent to a Grade Point of 1) is necessary to pass a module.

Based on the academic regulation to be eligible to take final exam, students must attend at least 80% of the total course sessions. On the other hand, students must attend all lab work activities in order to get a practice examination permit. Students who have not yet reached the minimum achievement criteria have to join the remedial programme which is an additional programme that should help them improve their unsatisfactory results. The lecturers will provide several alternatives such as a second trial of exams or additional assignments. The remedial program allows students to fix their shortcomings and finish the course on time with satisfactory results and is meant to shorten the study period.

The peers discuss with the students how many and what kind of exams they have to take each semester. They learn that for most courses there is one mid-term exam and one final exam in every semester. For other courses, there is only one final exam in every semester. Usually, there are additional practical assignments or quizzes. The final grade is the sum of the sub exams. The students appreciate that there are several short exams instead of one big exam as this requires them to continuously study during the entire semester and not having to solely work for one final exam at the end of the semester. The students also confirm that they are well informed about the examination schedule, the examination form and the rules for grading.

Every student is required to do a final thesis in the fourth year of studies. Prior to the actual research work, the students are required to write a research proposal and present it in a seminar attended by lecturers and other students who form a research group. The research proposal has to be accepted by the Dean and the supervisor committee who will then appoint the research supervisors. Usually, there are 2 research supervisors for each student. One will act as the principal supervisor and the other act as co-supervisor. In case the student writes her or his thesis in collaboration with the industry, she or he is also assigned a supervisor from the industry. After completing the work on the Bachelor's thesis, the student has to present and defend the results in front of teachers and fellow students.

The peers discuss with the programme coordinators, the members of the teaching staff, and the students about the process of finding suitable topic of the Bachelor's thesis. Basically, there are two possibilities. Either students can propose their own ideas or they can ask their academic advisor or other teachers for suggestions. The peers also inspect a sample of examination papers and final theses and are overall satisfied with the general quality of the samples.

The peers conclude that the criteria regarding the examinations system, concept, and organization are fulfilled and that the examinations are suitable to verify whether the intended learning outcomes are achieved or not.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 3:

Since UNHAS does not address this in its statement, the peers stick to their previous impression.

4. Resources

Criterion 4.1 Staff

Evidence:
- Self-Assessment Report
- Staff Handbook
- Samples of lecturer evaluation by students
- Study plans of the degree programmes
- Module descriptions
- Websites
- Discussions during the audit

Preliminary assessment and analysis of the peers:
At UNHAS, the staff members have different academic positions. There are professors, associate professors, assistant professors and lecturers. The academic position of each staff member is based on research activities, publications, academic education, supervision of students, and other supporting activities. For example, a full professor needs to hold a PhD degree. In addition, the responsibilities and tasks of a staff member with respect to teaching, research, and supervision depend on the academic position. The main difference of

tasks and responsibilities based on academic staff position lies on the proportion of teaching and research activities. The higher the academic staff position is, the greater is the proportion of research activities, but the lower is the proportion of teaching activities.

There are 26 teaching staff for <u>Informatics</u> (4 professors, 11 with PhD, 2 PhD candidate, 9 with Master's degree) and 21 (4 professors, 8 with PhD, 9 with Master's degree) for <u>Urban and Regional Planning</u>. The university encourages the teaching staff with a Master's degree to pursue further qualification. These numbers mean that the ratio between academic staff and students is 1:21 in the <u>Informatics degree programme</u> and 1:16 in the <u>Urban and Regional Planning programme</u>. In addition, the faculty regularly invites visiting lecturers from Indonesia and abroad to facilitate academic exchange.

Recruiting new teaching staff follows a defined procedure starting with a needs analysis of the degree programme, the proposal for new positions to the university, a public announcement and finally the recruitment based on the results of a basic competence test, a field competence test and an interview.

The academic staff is involved in a number of research projects funded by grants from the Indonesian government, the university itself or other research funds. This results in publications. If the respective grants allow it, students are involved in these projects, mostly through undergraduate theses.

The peers discuss with the programme coordinators and the teaching staff of the <u>Informatics degree programme</u> to what extent they are involved in fundamental research. From the programme coordinators, the peers learn that their research work is mostly applied as the research grants are awarded for research projects aimed at the seventeen global sustainable development goals (SDG). They further explain that fundamental research is focused in the Master's degree programme. The peers take notice of this and are satisfied with the explanations.

In summary, the peers confirm that the composition, scientific orientation and qualification of the teaching staff are suitable for successfully implementing and sustaining the degree programmes.

Criterion 4.2 Staff development

Evidence:

- Self-Assessment Report

- Staff handbook

- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the self-assessment Report, UNHAS encourages the continuing professional development of its staff. For this purpose, various opportunities are provided. There is a mandatory educational training for new academic staff that encompasses curriculum design, teaching material, and innovative teaching and learning methods. Moreover, workshops are held continuously to refresh and to deepen didactic competences. Additionally, the teaching staff of both degree programmes achieved global industry certificates from AWS (Amazon Web Service), CISCO CCNA, Google, and Microsoft to improve their informatics competence.

All teaching staff are encouraged to study abroad or to participate in international research projects and conferences in order to enhance their knowledge, increase their English proficiency and to build international networks. For this purpose, the university informs about possible scholarships either from Indonesia itself or from foreign governments to support academic mobility.

The peers discuss with the members of the teaching staff the opportunities to develop their personal skills and learn that the teachers are satisfied with the internal qualification programme at the university, their opportunities to further improve their didactic abilities and to spend some time abroad to attend conferences, workshops or seminars.

The peers consider the support mechanisms for the continuing professional development of the teaching staff adequate and sufficient.

Criterion 4.3 Funds and equipment

Evidence:

- List of laboratories and equipment
- Photos and videos of the facilities
- Overview of partnership agreements
- Self-Assessment Report
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The university and the faculty are mainly funded by the Indonesian government, through the tuition fees and through grants for research projects. The figures presented by the university show that the faculty's income is stable and the funding of the degree programmes is secured. The academic staff emphasise that from their point of view, the two undergrad-

uate programmes under review receive sufficient funding for teaching and learning activities. The students confirm this positive impression and state their satisfaction with the available resources.

In preparation of the audit, the university provides a number of videos showing the laboratories of the programmes. During the online visit, the laboratories, the lecture rooms, the library, the University's Hospital and the Sports Centre were shown in more detail. The peers notice that the lecture rooms are in a very good condition and equipped with modern technology. The university has teaching as well as research laboratories for the two degree programmes. Overall, they notice that there are no bottlenecks due to missing equipment or a lacking infrastructure. The students confirm this positive impression during the discussion with the peers. They are satisfied with the available equipment and the technical infrastructure.

The university has licensed Microsoft Office and other standard software. UNHAS provides the students full access to this software. Students and teaching staff are satisfied with their functionality. The central library, the libraries of the different departments as well as the reading room of the faculties are well equipped overall.

In summary, the peer group judges the available funds, the technical equipment, and the infrastructure with the requirements for adequately sustaining the degree programmes.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 4:

Since UNHAS does not address this in its statement, the peers stick to their previous impression.

5. Transparency and documentation

Criterion 5.1 Module descriptions

Evidence:
- Module descriptions
- Websites

Preliminary assessment and analysis of the peers:

The module handbooks for the Urban and Regional Planning degree programme have been published on UNHAS' website and are thus accessible to the students as well as to all stakeholders. The peers observe that they contain information about the persons responsible for each module, the teaching methods and workload, the credit points awarded, the intended learning outcomes, the examination requirements, the admission requirements, the forms of assessment and details explaining how the final grade is calculated. However, information about the applicability of the modules in other study programmes is not included in the module descriptions. Therefore, the peers request to include this information in the module descriptions.

In addition, during the discussion with the programme coordinators, the peers learn that the curriculum for the Informatics degree programme has been updated and changed for the current semester 2021/22. UNHAS provides the new curriculum during the accreditation procedure. However, as the corresponding module descriptions were not yet available to the peers at the moment of the audit, they urge UNHAS to provide and make the latest version of the module descriptions accessible for students and teaching staff.

Finally, during the discussions with the programme coordinators and the teaching staff, the peers realise that in the Urban and Regional Planning degree programme, students have to successfully complete six studios which build on each other and together form a blue line. The blue line represents the core subjects of the degree programme. All other modules support the blue line by tailoring their content to the studios' learning outcomes. However, the content of the single modules and their relation to the studio work is not evident from the module descriptions. For instance, the module description for the module "Development of coastal areas based on climate change" contains information that is identical to the title of the module and therefore does not provide any additional insight into the content of the module. Furthermore, it does not become clear in how far this module supports the studio work in the blue line. The module description for the module "Housing and settlement systems" can be used as another example. It reduces the content of the module to "theories, norms, standards and regulations of housing and settlement systems". The peers wonder if the module includes an introduction into urban design aspects and what the relation to the studio work is, as this is not clear from the module description. Therefore, the peers ask UNHAS to ensure that the module descriptions include detailed information about the content and the relation to the studio work.

Criterion 5.2 Diploma and Diploma Supplement

Evidence:

- Sample Transcript of Records for each degree programme

- Sample Diploma certificate for each degree programme

- Sample Diploma Supplement for each degree programme

Preliminary assessment and analysis of the peers:

The peers confirm that the students of all two degree programmes under review are awarded a Diploma and a Diploma Supplement after graduation. The Diploma consists of a Diploma Certificate and a Transcript of Records. The Transcript of Records lists all courses that the graduate has completed, the achieved credit points, grades, and cumulative GPA. However, the Diploma Supplement does not contain all necessary information about the degree programmes. Information about the mode of study (full time, part time) is missing. Therefore the peers urge UNHAS to include this information in the Diploma Supplements.

Criterion 5.3 Relevant rules

Evidence:

- Self-Assessment Report

- All relevant regulations as published on the university's website

Preliminary assessment and analysis of the peers:

The auditors confirm that the rights and duties of both UNHAS and the students are clearly defined and binding. All rules and regulations are published on the university's website in and hence available to all stakeholders. In addition, the students receive all relevant course material in the language of the degree programme at the beginning of each semester.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 5:

Criterion 5.1:

With regard to the requirement related to applicability, UNHAS states that in the Urban and Regional Planning degree programme the modules are offered exclusively in this degree programme. Furthermore, UNHAS included the information about the applicability in the form of information about the relation of the module to the curriculum. Therefore, the peers consider the requirement to be fulfilled.

Moreover, regarding the updated curriculum of the Informatics degree programme, UN-HAS provides in its response statement the latest version of the module descriptions and makes them accessible on their website for students and teaching staff. Therefore, the peers consider the requirement to be fulfilled.

Finally, since UNHAS does not address the requirement that urges the university to include detailed information about the content and the relation to the studio work into the module descriptions of the Urban and Regional Planning degree programme, the peers stick to their previous impression.

Criterion 5.2:

UNHAS included the information about the mode of study in the Diploma Supplements of both degree programmes. Therefore, the peers consider this requirement to be fulfilled.

6. Quality management: quality assessment and development

Criterion 6 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Academic Guidelines
- Performance indicator of ILO
- Discussions during the audit

The peers discuss the quality management system at UNHAS with the programme coordinators. The peers learn that there is an institutional system of quality management aiming at continuously improving the degree programmes.

This system relies on internal (SPMI) as well as external (SPME) quality assurance. SPMI encompasses all activities focused on implementing measures for improving the teaching and learning quality at UNHAS. SPME focuses on both national and international accreditations. Every degree programme and every Higher Education Institution in Indonesia has to be accredited by the national Accreditation Agency (BAN-PT). UNHAS as an institution as well as the two degree programmes under review have received the highest accreditation status (A) from BAN-PT.

Since UNHAS is striving to become an internationally acknowledged university, the reliance on students' feedback and the necessity to ensure and improve the employability of the graduates are of major importance to the coordinators. Internal evaluation of the quality of the degree programmes is mainly provided through student, alumni and employer surveys. The students give their feedback on the courses by filling out the questionnaire online. The course evaluations are conducted at the end of each semester; the questionnaire was developed by the course survey committee and includes questions with respect to the course in general and about the teachers' performance. Further surveys are carried out by gathering statistics about graduates and alumni. The discussion with the students revealed that those in charge are always eager and open for feedback aside from the official evaluations and that students have the impression that their comments are taken into consideration with regard to the further improvement of the programmes. This becomes apparent in the constant curricular revision process that is performed under participation of students and industry partners. The industry representatives confirm in the discussion that the university is eager to receive feedback about new developments and trends and the employability of their graduates.

Concerning the internal feedback loops the results of the course evaluations are centrally assessed and analysed before they are communicated to the Head of Department. He would then be responsible to initiate any measures if problems or needs for improvement have been detected. A summary of the results is made accessible to the students. In case the satisfaction of the students with staff members is deficient, the Heads of Department will contact the respective teacher, discuss the issue and propose solutions. If no improvement can be achieved over a longer period, the staff member will be dismissed. Thus, the peers agree that the quality management circles at UNHAS are well established and work under participation of all stakeholders.

In summary, the peers are satisfied with the quality management system at UNHAS, especially with the continuous feedback loops and the involvement of important stakeholder groups such as students, alumni and representatives from the industry.

Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 6:

Since UNHAS does not address this in its statement, the peers stick to their previous impression.

D Additional Documents

Before preparing their final assessment, the panel ask that the following missing or unclear information be provided together with the comment of the Higher Education Institution on the previous chapters of this report:

 D 1. Updated module descriptions for Ba Informatics

E Comment of the Higher Education Institution (25.01.2022)

The institution provided a detailed statement as well as the following additional documents:

- Updated module descriptions for both study programmes

- Revised Diploma Supplement for both study programmes

- Proof of accessibility of updated module descriptions on the website of Ba Informatics

- Programme structure of Ba Urban and Regional Planning

F Summary: Peer recommendations (21.02.2022)

Taking into account the additional information and the comments given by UNHAS the peers summarize their analysis and final assessment for the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum du-ration of ac-creditation	Subject-spe-cific label	Maximum dura-tion of accredi-tation
Ba Informatics	Without re-quirements	30.09.2027	–	–
Ba Urban and Re-gional Planning	With require-ments for one year	30.09.2027	–	–

Requirement
For Urban and Regional Planning degree programme

A 1. (ASIIN 5.1) It must be ensured that the module descriptions include detailed infor-mation about the content and the relation to the studio work.

Recommendations
For all degree programmes

E 1. (ASIIN 1.3) It is recommended to improve the soft skills of the students by establishing elective courses.

For Urban and Regional Planning degree programme

E 2. (ASIIN 1.3) It is recommended to strengthen the scope of urban design fundamentals in the first semesters of the programme.

E 3. (ASIIN 1.3) It is recommended to make the influence and the dependencies of single modules on the studio work more transparent and to shift credits from the special-ized modules to the blue line.

G Comment of the Technical Committees (08.03.2022)

Technical Committee 03 – Civil Engineering, Geodesy and Architecture (07.03.2022)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the accrediting procedure and follows the assessment of the peers without any changes.

The TC 03 – Civil Engineering, Geodesy and Architecture recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Urban and Regional Planning	With requirements for one year	30.09.2027	–	–

Requirement
For Urban and Regional Planning degree programme

A 1.   (ASIIN 5.1) It must be ensured that the module descriptions include detailed information about the content and the relation to the studio work.

Recommendations
For all degree programmes

E 1.   (ASIIN 1.3) It is recommended to improve the soft skills of the students by establishing elective courses.

For Urban and Regional Planning degree programme

E 2.   (ASIIN 1.3) It is recommended to strengthen the scope of urban design fundamentals in the first semesters of the programme.

E 3. (ASIIN 1.3) It is recommended to make the influence and the dependencies of single modules on the studio work more transparent and to shift credits from the specialized modules to the blue line.

Technical Committee 04 – Informatics/Computer Science (08.03.2022)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the accrediting procedure and follows the decision of the peers. However, it changes the wording of the recommendation E1.

The TC 04 – Informatics/Computer Science recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Informatics	Without requirements	30.09.2027	–	–

Recommendations
For all degree programmes

E 1. (ASIIN 1.3) It is recommended to further improve the soft skills of the students.

H Decision of the Accreditation Commission (18.03.2022)

Assessment and analysis for the award of the subject-specific ASIIN seal:

The Accreditation Commission discusses the accrediting procedure and follows the assessment of the Technical Committees without any changes.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Informatics	Without requirements	30.09.2027	–	–
Ba Urban and Regional Planning	With requirements for one year	30.09.2027	–	–

Requirement
For Urban and Regional Planning degree programme

A 1. (ASIIN 5.1) It must be ensured that the module descriptions include detailed information about the content and the relation to the studio work.

Recommendations
For all degree programmes

(ASIIN 1.3) It is recommended to further improve the soft skills of the students.

For Urban and Regional Planning degree programme

E 1. (ASIIN 1.3) It is recommended to strengthen the scope of urban design fundamentals in the first semesters of the programme.

E 2. (ASIIN 1.3) It is recommended to make the influence and the dependencies of single modules on the studio work more transparent and to shift credits from the specialized modules to the blue line.

Appendix: Programme Learning Outcomes and Curricula

According to the self-assessment report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the <u>Bachelor's degree programme Informatics</u>:

Graduate profiles:

- IT developer: An IT developer develops IT based solutions for any real-life problem in the society, either by focusing on a specific programme or application, creating a framework for software development or underlying systems that help trigger and power other programmes. This profile requires a deeper knowledge in Software Engineering methods and processes.
- IT consultant: An IT consultant is a technical specialist that focuses on integrating information technology into businesses and showing clients how to use IT more efficiently to help reach objectives and targets. This profile requires a deeper understanding on the basic subjects, such as Information systems. It also benefited from a wider knowledge of IT processes and how all the components of the IT system are interconnected.
- IT academician: academics in the Computer Science/informatics field who will focus themselves to be lecturer or researcher in various higher education and research institutions. Along with a wider knowledge of basics of IT, such as algorithms, data structures, basics of logic and discrete math, this profile also needs the soft skills such as interpersonal communication.

The Intended Learning Outcomes are as follow:

1. [ILO1] Have the knowledge of fundamental Computing Science that includes basic theory and concepts of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering and Information System.
2. [ILO2] Have the knowledge of advanced topics in Informatics specific fields of either Artificial Intelligence, Data Science, Computer Network, Cloud Computing or Internet of Things.
3. [ILO3] Apply the knowledge of computing and other related disciplines to analyse and identify solutions for any computing-based problem.

4. [ILO4] Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements by applying computer science theory and software development fundamentals.
5. [ILO5] Accomplish the tasks within their professional responsibilities based on legal and ethical principles.
6. [ILO6] Perform effectively in a team, either as a member or leader, in activities related to the program's discipline.
7. [ILO7] Communicate their ideas in a convincing and effective manner, either in written or orally, to propose solutions..
8. [ILO8] Acknowledge the different points of view of others that includes beliefs, cultures, ideas and original inventions.

The following **curriculum** is presented:

No	Code	Course Name	L	P	T
FIRST SEMESTER					
1	18Y02110203	Basic Mathematics I	3	0	3
2	18Y01111102	Civics	2	0	2
3	18Y01110902	Indonesian Language	2	0	2
4	18Y01110802	Science and Technology Insight	2	0	2
5	21D12110102	Fundamentals of Information Technology	2	0	2
6	21D12110203	Basic Computer Programming	2	1	3
7	21D12110303	Digital Systems	2	1	3
8	21D12110402	Basic Electrical and Electronics	2	0	2
TOTAL CREDITS			17	2	19

No	Code	Course Name	L	P	T
SECOND SEMESTER					
1	18Y01110303	Basic Mathematics II	3	0	3
2	18Y01110102	Moslem Religion	2	0	2
	18Y01110202	Catholic Religion			
	18Y01110302	Christian Religion			
	18Y01110402	Hindu Religion			
	18Y01110502	Buddha Religion			
	18Y01110602	Khonghucu Religion			
3	18Y01111202	Pancasila	2	0	2
4	18Y01111002	English	2	0	2
5	18Y01110702	Maritime Social Culture Insight	2	0	2
6	21D12110503	Discrete Mathematics	3	0	3

7	21D12110604	Algorithms and Data Structures	3	1	4
8	21D12110702	Basics of Multimedia	2	0	2
		TOTAL CREDITS	19	1	20

THIRD SEMESTER					
No	Code	Course Name	L	P	T
1	21D12120103	Linear Algebra	3	0	3
2	21D12120202	Database	2	0	2
3	21D12120303	Computer Architecture	2	1	3
4	21D12120403	Object-oriented Programming	2	1	3
5	21D12120502	Human-Computer Interaction	2	0	2
6	21D12120602	Formal Language and Automata Theory	2	0	2
7	21D12120702	Script Programming	2	0	2
8	21D12120803	Artificial Intelligence	2	1	3
		TOTAL CREDITS	17	3	20

FOURTH SEMESTER					
No	Code	Course Name	L	P	T
1	21D12120902	Ethics	2	0	2
2	21D12121003	Numerical Computing Method	3	0	3
3	21D12121102	Database Management	2	0	2
4	21D12121203	Operating Systems	2	1	3
5	21D12121303	Software Engineering	2	1	3
6	21D12121403	Computer Network	2	1	3
7	21D12121503	Digital Security	2	1	3
		TOTAL CREDITS	15	4	19

FIFTH SEMESTER					
No	Code	Course Name	L	P	T
1	21D12130103	Probability and Statistics	3	0	3
2	21D12130203	Technopreneurship	2	1	3
3	21D12130303	Modeling and Simulation	3	0	3
4	21D12130403	Web Programming	2	1	3
5	21D12130503	Mobile Programming	2	1	3
6	21D12130602	Information Systems	2	0	2
7	21D12130703	Research Methods	2	1	3
		TOTAL CREDITS	16	4	20

SIXTH SEMESTER					
Elective Big Data and Cloud Computing					
No	Code	Course Name	L	P	T
1	21D12131004	**Virtualization and Cloud Computing**	2	2	4
2	21D12131104	**Data Analysis**	2	2	4
3	21D12131204	**Big Data Systems**	2	2	4
4	21D12130804	Software Engineering Project	1	3	4
5	21D12130901	Co-Curricular	0	1	1
6	21D1214XX03	*Elective Course*	2	1	3
		TOTAL CREDITS	9	11	20
Elective Artificial Intelligence and Robotics					
No	Code	Course Name	L	P	T
1	21D12131304	**Computer Vision**	2	2	4
2	21D12131404	**Data Science**	2	2	4

3	21D12131504	**Artificial Intelligence and Robotics**	2	2	4
4	21D12130804	Software Engineering Project	1	3	4
5	21D12130901	Co-Curricular	0	1	1
6	21D1214XX03	*Elective Course*	2	1	3
		TOTAL CREDITS	9	11	20

Elective Internet of Things

No	Code	Course Name	L	P	T
1	21D12131604	**Embedded Systems**	2	2	4
2	21D12131704	**Wireless Sensor Network**	2	2	4
3	21D12131804	**Parallel Programming**	2	2	4
4	21D12130804	Software Engineering Project	1	3	4
5	21D12130901	Co-Curricular	0	1	1
6	21D1214XX03	*Elective Course*	2	1	3
		TOTAL CREDITS	9	11	20

SEVENTH SEMESTER					
No	Code	Course Name	L	P	T
1	21D12140104	Internship	0	4	4
2	21D12140204	Students Community Service	0	4	4
3	21D1214XXXX	*Elective Course*	8	4	12
		TOTAL CREDITS	8	12	20

EIGHTH SEMESTER					
No	Code	Course Name	L	P	T
1	21D12140302	Seminar 1	2	0	2
2	21D12140402	Seminar 2	2	0	2

3	21D12140504	Final Project	4	0	4
		TOTAL CREDITS	8	0	8

(Courses in bold letters are compulsory elective courses)

Elective courses

ELECTIVE COURSES					
No	Code	Course Name	L	P	T
1	21D12140603	**Social Network Analysis**	2	1	3
2	21D12140703	Animation and 3D Modeling	2	1	3
3	21D12140803	Augmented Reality	2	1	3
4	21D12140903	**IT Business**	2	1	3
5	21D12141003	Cyber Physical Systems	2	1	3
6	21D12141103	Digital Forensics	2	1	3
7	21D12141203	Computer Graphics	2	1	3
8	21D12141303	Multimedia Network	2	1	3
9	21D12141403	Hybrid Artificial Intelligence	2	1	3
10	21D12141503	**Biomedical Computing**	2	1	3
11	21D12141603	Pervasive Computing	2	1	3
12	21D12141703	Interpersonal Communication	2	1	3
13	21D12141803	**Cryptography**	2	1	3
14	21D12141903	**Information Technology Management**	2	1	3
15	21D12142003	Microprocessor	2	1	3
16	21D12142103	**Natural Language Programming**	2	1	3
17	21D12142203	Visual Programming	2	1	3
18	21D12142303	Coding and Compression	2	1	3
19	21D12142403	Web Engineering	2	1	3
20	21D12142503	Computer Game and Simulation	2	1	3

21	21D12142603	Enterprise Systems	2	1	3
22	21D12142703	Information Retrieval Systems	2	1	3
23	21D12142803	Intelligent Transportation Systems	2	1	3
24	21D12142903	Mobile Application Technology	2	1	3
25	21D12143003	Telecommunications Technology	2	1	3
26	21D12143103	Cloud Computing Specific Topics	2	1	3
27	21D12143203	Specific Topic in Internet of Things	2	1	3
28	21D12143303	Specific Topic in Computer Network	2	1	3
29	21D12143403	Specific Topic in Artificial Intelligence	2	1	3
30	21D12143503	Specific Topic in Software Engineering	2	1	3
31	21D12143603	Specific Topic in Computer Systems	2	1	3
32	21D12143703	Distributed Systems	2	1	3
33	21D12143803	Specific Topic in Robotics	2	1	3
34	21D12143903	Specific Topic in Big Data	2	1	3

(L = Lecture; P = Practice; T = Total)

According to the self-assessment report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the <u>Bachelor's degree programme Urban and Regional Planning</u>:

The Intended Learning Outcomes are as follow:

1. Knowledge (K)

- ILO 1: Being able to think critically, creatively, master theoretical concepts, principles, and processes in comprehensive urban and regional research and planning, especially in the context of maritime culture.
- ILO 2: Being able and skilled in formulating various information related to natural resource, human resource, artificial resource which are analyzed through theoretical principles and Norm, Standart, Procedure and Criteria into a form of spatial and non-spatial plans, presented in the form of maps, policy models, and mathematical models, using qualitative and/or quantitative analysis.

2. Skills (S)

- ILO 3: Being able to apply theoretical concepts to solve problems of urban and regional planning study in a multidisciplinary manner, both land and water, especially spatial planning for coastal areas and small islands.

- ILO 4: Being able to master the application of methods and technology using Technology Information devices both in finding problems (problem seeking), identifying physical or non-physical spatial issues, and also solving problems through a procedure and analysis in the urban and regional planning study.
- ILO 5: Being able to criticize the results of planning and/or government policies through a systematic analysis process using various analytical techniques, and also providing alternative solutions.
- ILO 6: Being able to compile, document, and communicate the results of urban and regional planning based on the national development planning system, as well as sectoral plans (transportation, tourism, housing, education, trade, etc.) which are integral to the Spatial Plan by prioritizing professional ethics

  3. Competence (C)
- ILO 7: Being able to demonstrate knowledge and skills in terms of pioneering, leadership, and ethical responsibility in managing policies of urban and regional planning study.
- ILO 8: Having the ability to develop themselves as lifelong learners to continue their education and profession, both formally and informally, both locally, nationally and globally.
- ILO 9: Being able to show practitioner ability in service industry in the field of Urban and Regional Planning
- ILO 10: Mastering the strategy for implementing regional and/or city planning in a responsible, independent or cooperative manner, based on professional ethics, and having strong integrity and commitment.

The following **curriculum** is presented:

1st Semester	2nd Semester	3rd Semester	4th Semester	5th Semester	6th Semester	7th Semester	8th Semester
Science and Technology Perspective (2 SKS/3.4 ECTS)	Pancasila (2 SKS/3.4 ECTS)	Planning Theory and Principle (2 SKS/3.4 ECTS)	Urban and Regional Economics (3 SKS/5.1 ECTS)	Planning Evaluation Technique (3 SKS/5.1 ECTS)	Urban and Regional Development Financing (3 SKS/5.1 ECTS)		
Bahasa (2 SKS/3.4 ECTS)	English (3 SKS/5.1 ECTS)	Planning Analysis Method (3 SKS/5.1 ECTS)	Sustainable Infrastructure Planning (3 SKS/5.1 ECTS)	Professional Practical Work (3 SKS/5.1 ECTS)	Urban and Regional Planning Issues with Study Cases (3 SKS/5.1 ECTS)		
Statistics (3 SKS/5.1 ECTS)	Regilious Education (3 SKS/5.1 ECTS)	Urban and Regional Infrastructure Planning (3 SKS/5.1 ECTS)	Ecology of Waterfront Areas (3 SKS/5.1 ECTS)	Field Study/Job Training (3 SKS/5.1 ECTS)	Urban and Regional Planning Ethics (2 SKS/3.4 ECTS)	KKN/Community Service Program (4 SKS/6.8 ECTS)	
Mapping Studio (4 SKS/6.8 ECTS)	Data Collection Studio (4 SKS/6.8 ECTS)	Site Planning Studio (5 SKS/8.5 ECTS)	Urban Planning Studio (5 SKS/8.5 ECTS)	Regional Planning Studio (5 SKS/8.5 ECTS)	Urban and Regional Development Planning Studio (5 SKS/8.5 ECTS)	Planning/Research LBE Studio (5 SKS/8.5 ECTS)	Theses Planning/Research (6 SKS/10.2 ECTS)
Introduction to Urban and Regional Planning (2 SKS/3.4 ECTS)	Scientific Writing Study (2 SKS/3.4 ECTS)	Spatial planning (3 SKS/5.1 ECTS)	Planning ad Community Development (2 SKS/3.4 ECTS)	Planning Institutional Management (3 SKS/5.1 ECTS)	Planning Law and Public Policy (3 SKS/5.1 ECTS)	Theses Planning/Research (6 SKS/10.2 ECTS)	
A History of Urban and Regionl Planning (2 SKS/3.4 ECTS)	Planning Process (2 SKS/3.4 ECTS)	Planning Information System (3 SKS/5.1 ECTS)	Research Methodology (3 SKS/5.1 ECTS)	Elective Course 2 (3 SKS/5.1 ECTS)	Elective Course 4 (3 SKS/5.1 ECTS)		
Calculus (3 SKS/5.1 ECTS)	Marine Socio-Cultural Study (2 SKS/3.4 ECTS)	Housing and Settlement System (3 SKS/5.1 ECTS)	Elective Course 1 (3 SKS/5.1 ECTS)	Elective Course 3 (3 SKS/5.1 ECTS)			
Social Demography System (2 SKS/3.4 ECTS)	Cartography and Remote Sensing (4 SKS/6.8 ECTS)						
Civic education (2 SKS/3.4 ECTS)							

Figure 2.1 URP Programme Structure and Content

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COURSES LIST OF BACHELOR DEGREE PROGRAM OF URP

SEM	No	Course Code	Course	Credit Point (CP)
I	1	079U002	Science and Technology Perspective	2
	2	080U002	Language	2
	3	101D5213	Statistics	3
	4	102D5212	A History of Urban and Regional Planning	2
	5	103D5212	Introduction to Urban and Regional Planning	2
	6	104D5214	Mapping Studio	4
	7	105D5213	Calculus	3
	8	106D5212	Social Demography System	2
	9	081U002	Civic education	2
Total of Credit Point				22
II	1	082U002	Pancasila	2
	2	083U003	English	3
	3	077U003	Regilious Education	3
	4	078U002	Marine Socio-Cultural Study	2
	5	107D5222	Scientific Writing Study	2
	6	108D5222	Planning Process	2
	7	109D5224	Data Collection Studio	4
	8	110D5224	Cartography and Remote Sensing	4
Total of Credit Point				22
III	1	211D5212	Planning Theory and Principle	2
	2	212D5213	Planning Analysis Method	3
	3	213D5213	Urban and Regional Infrastructure Planning	3
	4	214D5213	Spatial planning	3
	5	215D5215	Site Planning Studio	5
	6	216D5213	Planning Information System	3
	7	217D5213	Housing and Settlement System	3
Total of Credit Point				22
IV	1	218D5223	Urban and Regional Economics	3
	2	219D5223	Sustainable Infrastructure Planning	3
	3	220D5223	Ecology of Waterfront Areas	3
	4	221D5225	Urban Planning Studio	5
	5	222D5222	Planning ad Community Development	2
	6	223D5223	Research Methodology	3
	7	2XXD5223	Elective Course 1	3

SEM	No	Course Code	Course	Credit Point (CP)
Total of Credit Point				22
V	1	329D5213	Planning Evaluation Technique	3
	2	330D5233	Professional Practical Work/Internship	3
	3	331D5213	Field Study	3
	4	332D5215	Regional Planning Studio	5
	5	333D5213	Planning Institutional Management	3
	6	3XXD5213	Elective Course 2	3
	7	3XXD5213	Elective Course 3	3
Total of Credit Point				23
VI	1	345D5223	Urban and Regional Development Financing	3
	2	346D5223	Urban and Regional Planning Issues with Study Cases	3
	3	347D5222	Urban and Regional Planning Ethics	2
	4	348D5225	Urban and Regional Development Planning Studio	5
	5	349D5223	Planning Law and Public Policy	3
	6	3XXD5223	Elective Course 4	3
Total of Credit Point				19
VII	1	455D5214	Community Service Program	4
	2	456D5235	Planning/Research LBE Studio	5
Total of Credit Point				9
VIII	1	457D5236	Bachelor Theses Planning/Research	6
Total of Credit Points				6
Total of Credit Points				**146**