# ASIIN Seal

# Accreditation Report

**Bachelor's Degree Programmes**
***Architecture***
***Urban and Regional Planning***

**Master's Degree Programme**
***Geomatics Engineering***

Provided by
**Institut Teknologi Sepuluh Nopember**

Version: 28.06.2024

# 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] |
|---|---|---|---|---|
| Sarjana Arsitektur (S. Ars) | Bachelor of Architecture | ASIIN | BAN-PT (grade A, until 2026) | 03 |
| Sarjana Perencanaan Wilayah dan Kota (S.PWK) | Bachelor of Urban and Regional Planning | ASIIN | BAN-PT (grade A, until 2025) | 03 |
| Magister Teknik Geomatika (MT) | Master of Geomatics Engineering | ASIIN | BAN-PT (grade A, until 2023) | 03 |
| **Date of the contract:** 31.01.2022<br>**Submission of the final version of the self-assessment report:** 30.06.2022<br>**Date of the onsite visit:** 12.-14.10.2022<br>**at:** online | | | | |
| **Peer panel:**<br>Prof. Dipl.-Ing. Martin Weischer, Münster University of Applied Sciences<br>Prof. Dr.-Ing. Lutz Beckmann, Jade University of Applied Sciences, Oldenburg<br>Prof. Dr.-Ing. Jörg Knieling, HafenCity University Hamburg<br>Univ.-Prof. Dr.-Ing. Wolfgang Peter Reinhardt (i.R.), Bundeswehr University Munich<br>Univ.-Prof. i.R. Dipl.-Ing. Dr. techn. Wolfgang Kainz, University of Vienna<br>Dipl.-Ing. Michael Stein, Treuhaus Bauträger- und Projektentwicklungsgesellschaft mbH<br>(student representative absent due to illness) | | | | |

[1] ASIIN Seal for degree programmes
[2] TC: Technical Committee for the following subject areas: TC 03 - Civil Engineering, Geodesy and Architecture

| | |
|---|---|
| **Representative of the ASIIN headquarter:** Yanna Sumkötter | |
| **Responsible decision-making committee:** Accreditation Commission | |
| **Criteria used:**<br><br>European Standards and Guidelines as of 15.05.2015<br><br>ASIIN General Criteria, as of 28.03.2014<br><br>Subject-Specific Criteria of Technical Committee 03 – Civil Engineering, Geodesy and Architecture as of 28.09.2012 | |

# 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 |
|---|---|---|---|---|---|---|---|---|
| Architecture | Bachelor of Architecture | ●Architecture Design<br>●Architecture History Theory and Criticism<br>●Architectural Science And Technology<br>●Housing and Settlements<br>●Urban Design | 6 | Full time | / | 8 semesters | 150 SKS (equivalent to 240 ECTS) | Annually / 1965 |
| Urban and Regional Planning | Bachelor of Urban and Regional Planning | ●Urban and Regional Planning<br>●Spatial Planning<br>●Coastal Area Planning | 6 | Full time | / | 8 semesters | 150 SKS (equivalent to 240 ECTS) | Annually / 2002 |
| Geomatics Engineering | Master of Engineering | • Geodesy and Geodynamics<br>• Surveying and Cadastre<br>• Geographic Information System, Remote Sensing, and Photogrammetry<br>• Hydrography and Marine | 7 | Full time | / | 4 semesters | 66 SKS (equivalent to 105,6 ECTS) | Twice a year / 2009 |

For the Bachelor's degree programme Architecture the institution has presented the following profile on the department website:

"The objectives of the Bachelor's degree programme Architecture are to develop students who are:

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

- Capable of participating and contributing to environmental sustainability, quality of society, nationalism, citizenship and civilization which are based on law and the national fundamental principles of Indonesia (Pancasila).
- Capable of showing respect on academic ethic, norm and value, responsibility, independence, perseverance, value of entrepreneurship and teamwork.
- Capable of implementing scientific, creative, and design thinking, and conducting original architectural studies and design in the form of design project and/or research's report.
- Capable of demonstrating qualified and measurable works, conducting self-evaluation and supervision, and establishing network in the national and international levels.
- Capable of mastering theoretical concepts of architecture, architectural design, building structural system and services.
- Capable of mastering principles of architectural design and design method.
- Capable of mastering principles of building science and technology, landscape, urban planning and design, housing & settlement and ecology that put reference on local context.
- Capable of mastering architectural communication and presentation techniques.
- Capable of making concept of architectural design that integrates the study on local environment and behavior, technical aspects and architectural values.
- Capable of independently designing a research-based architecture, and producing creative, contextual and theoretically valid architectural works.
- Capable of communicatively presenting architectural thoughts and design in the form of oral presentation, writing, manual and digital graphic works and models.
- Capable of utilizing design knowledge within the scope of building construction and supervision.

The students will graduate with the ability to apply and develop science, technology, and arts in the field of architecture, especially in terms of Housing and Settlements, Tropical Architecture, Nusantara Architecture (Indonesian Classical Architecture) and Computer-based Design, through international level research activities; solving problems in their area of expertise; and pursue professional performance through research and other academic activities."

For the Bachelor's degree programme Urban and Regional Planning the institution has presented the following on the department website:

"The objectives of the Bachelor's degree programme Urban and Regional Planning are to develop students who are:

- Able to understand and apply the theoretical concept of urban and regional planning in the aspects of urban studies, regional studies, spatial science, data science & computer application, socio-political, environmental management, built environment design, infrastructure and transportation system, coastal studies, management, economics
- Able to apply the techniques and processes of urban and regional planning in qualitative, quantitative, spatial modeling (geographic information systems) and presentation techniques
- Able to apply the methods of spatial planning/aspatial in decision making
- Able to compile the planning concept and direction of the plan through the study of strategic issues in the context of urban, regional, and coastal planning problems with understanding through observation and utilization of the data of physical/spatial, social, economic and environmental
- Able to compile the planning concept and direction of the plan through the study of strategic issues in the context of urban, regional, and coastal planning problems with understanding through observation and utilization of the data of physical/spatial, social, economic and environmental
- Able to analyze the spatial characteristics of urban, regional and coastal area through the lingkage between of spatial and aspatial aspects to provide information as the basis for planning and modelling
- Able to compile an alternative spatial model through a qualitative and quantitative approach in the form of scenarios setting the pattern of space and structure of urban, regional, and coastal area as well as propose the appropriate solutions
- Able to produce creative, innovative, sustainable planning that are accommodating public interest in which the resulted plans are reviewed on the rules and theories of planning and communicating them visually, verbally and in writing so that can be accounted academically
- Able to demonstrate the professional skills necessary to be effective and succeed in the modern workforce including work well in multi-disciplinary teams, the ability to create job opportunities the ability to formulate and solve problems, and the ability to communicate effectively, and to uphold standards of planning ethics and professionalism
- Able to internalize cultural diversities, local wisdom, values/norms in urban and regional planning process."

For the Master's degree programme Geomatics Engineering the institution has presented the following profile on the department website:

"The objectives of the Master's degree programme Geomatics Engineering are to develop students who are:

- Having in-depth and specific knowledge of mathematical and statistical methods, and capable of accomplishing, developing, and making use of complex and novel evaluation models relating all areas of geomatics engineering, e.g., geodesy & geodynamics; remote sensing, GIS, and photogrammetry; hydrography & marine; and surveying & cadastre
- Able to develop and apply the Earth science and technology with an interdisciplinary and multidisciplinary approach that integrates the results of research on the area of geomatics engineering, e.g., geodesy & geodynamics; remote sensing, GIS, and photogrammetry; hydrography & marine; and surveying & cadastre
- Able to identify, analyze, develop and provide an alternative use of science and technology in geomatics engineering, e.g., geodesy & geodynamics; remote sensing, GIS, and photogrammetry; hydrography & marine; and surveying & cadastre to support development in the information and globalization era.
- Able to conduct and develop research and innovative methods in the field of geomatics, either aimed at the development of science or to be applied.
- Able to manage research for expansion that is beneficial to society and science and able to get national and international recognition.
- Able to develop logical, critical, systematic, and creative thinking through scientific research, the creation of designs or works of art in the field of science and technology which concerns and applies the humanities value in accordance with their field of expertise, prepares scientific conception and result of study based on rules, procedures and scientific ethics in the form of a thesis or other equivalent form, and uploaded on a college page, as well as papers published in scientific journals accredited or accepted in international journals.
- Able to adapt and transform along with the development of geospatial science and technology in its working environment.
- Capable of managing, developing, and maintaining networking with colleagues, peers within the broader institutes, and research community.
- Able to perform academic validation or studies in accordance with their areas of expertise in solving problems in relevant communities or industries through the development of knowledge and expertise.
- Have an internalizing spirit of independence, struggle, and entrepreneurship.

- Have good morals, ethics, personality, and communication skill in each activity with respect for cultural diversity, views, beliefs, and religious attitude.
- Demonstrate an attitude of responsibility on work in their field of expertise independently and within an interdisciplinary team."

# 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
- 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)**,** 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 Architecture and Urban and Regional Planning as well as the Master's degree programme Geomatics Engineering 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.

The Institut Teknologi Sepuluh Nopember (ITS) has described and published programme learning outcomes (PLOs) for each of the three degree programmes under review. The PLOs describe in great detail the competences the students should acquire during their studies. By means of being published on the websites of the degree programmes, the PLOs are easily accessible for students as well as other stakeholders. Furthermore, there are regular revision processes in place that take into account feedback by external and internal stakeholders. A minor curriculum adjustment is done every year whereas a major revision including consultations of stakeholders takes place every four or five years.

The peers note that the development of PLOs of the study programmes involves both internal and external stakeholders so that the curricula can be adapted and modified according to the needs of the industry and the graduates on a regular basis. For example, ITS regularly conducts surveys, through which the different stakeholders get the chance to assess the programmes and their main objectives and adapt them if necessary. Internal stakeholders include all of ITS members (students, teaching staff, and non-academic employees), while the external stakeholders include the industry, alumni, the government, and society. The external stakeholders form the advisory board.

At the end of their studies, graduates of the Bachelor's degree programme Architecture have acquired basic and advanced knowledge in architectural design and design methods. They should be able to master the principles of building science and technology, urban planning and design, housing and settlement and ecology that put reference on the local context. They know how to design and develop a research-based architecture, produce creative, contextual and theoretically valid architectural works and have gained extensive presentation, writing, manual and digital graphic skills. Moreover, they have gained a solid understanding of how to utilize design knowledge within the scope of building construction and supervision. Therefore, graduates of this study programme are capable of working in several professions, especially as architect, architecture visualizer, entrepreneur, as well as in the area of building construction or construction management.

The aim of the Bachelor's degree programme Urban and Regional Planning is to produce graduates who have basic knowledge in theoretical concepts and methods of urban and regional planning and are able to apply this knowledge in the aspects of urban studies, regional studies, spatial science, data science & computer application, socio-political, environmental management, built environment design, infrastructure and transportation system, coastal studies, management, economics. Graduates of this program know how to analyze urban, regional and coastal territories in order to provide essential information for planning and conceptualization. Moreover, they must be able to compile alternative spatial concepts in the form of scenarios using qualitative and quantitative approaches. They are capable of producing innovative and sustainable planning that meets public needs. Consequently, graduates of this programme are capable of working as spatial planning analysts, regional and urban planner, infrastructure and transportation planner or researcher.

Graduates of the Master's degree programme Geomatics Engineering should have in-depth and specific knowledge of mathematical and statistical methods and be capable of accomplishing, developing, and making use of complex and novel evaluation models relating all areas of geomatics engineering. They are able to formulate and solve problems and to identify, analyze, develop and provide an alternative use of science and technology in the field of geomatics engineering. They know how to conduct and develop research and innovative

methods, either aimed at the development of science or to be applied. Consequently, graduates of this programme are capable of working as researcher, lecturer, technopreneur, state or private official or pursue further studies.

Next to the professional skills, the students of all three study programmes are supposed to acquire personal and social skills such as critical and creative thinking, communication skills, adaptability, the capacity to work in (international) teams, and leadership skills. In addition, they should be able to solve (engineering) problems through research and the application of different concepts and methods.

In the peers' opinion, the intended qualification profiles of all degree programmes are clear, plausible and allow students to take up an occupation, which corresponds to their qualification. They learn that the graduates of ITS are much sought after in the labor market. Moreover, many graduates of the Master's degree programme are employed as researchers/lecturers at various Indonesian universities. The representatives of industry emphasize the high quality of the graduates of all three programmes under review and students as well as graduates are satisfied with and well aware of their good job perspectives.

In summary, the peers confirm that the two Bachelor's degree programmes adequately reflect level 6 of the European Qualification Framework (EQF) while the Master's degree programme is adequate to EQF level 7. The programme learning outcomes of all three programmes are consistent with the respective ASIIN Subject-Specific Criteria of the Technical Committee of Civil Engineering, Geodesy and Architecture. They aim at the acquisition of specific competences and are well-anchored, binding and easily accessible to all stakeholders.

**Criterion 1.2 Name of the degree programme**

**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 peers hold the opinion that the English translation and the original Indonesian name of the Bachelor's degree programmes Architecture and Urban and Regional Planning as well as the Master's degree programme Geomatics Engineering 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
- Academic regulations
- Module descriptions
- Objective-module-matrices
- Discussions during the audit

**Preliminary assessment and analysis of the peers:**

The curricula of the three degree programmes are designed to comply with the programme objectives and learning outcomes and they are subject to constant revision processes (cf. chapter 1.1). 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 government and the private sector. Regular changes are made to ensure that the curricula are up to modern standards. Besides the PLOs defined by ITS 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. In the Self-Assessment Report and the curriculum for each programme, ITS describes how the PLOs of each programme are to be achieved in the individual modules and thus explains the significance of each module for the programme as a whole. The curricula are reviewed by the peers in order to identify whether the described learning objectives can be achieved by the available modules. Course descriptions as well as matrices matching the general learning objectives and the module contents were provided for a detailed analysis.

The Bachelor's degree programme Architecture comprises 45 courses and 150 Indonesian credit points (SKS). The degree programme normally spans over eight semesters but can be completed in a maximum of fourteen semesters. The students of the study programme get an overview of basic architectural design, basic building structure and construction, fundamentals of the built environment and architecture as well as Mathematics, Pancasila, Civics and languages (Indonesian and English) in the first two semesters. Over the course of the first six semesters, they take mandatory courses in the different areas of architecture, such as landscape architecture, architectural ecology, building services, architectural theory, history of Architecture, structure and construction in architecture, urban design, housing and human settlements and architectural science and technology. Besides the theoretical classes, they also acquire practical competences through studio courses in various areas.

Within the framework of this concept, the architectural design courses, which are supported by the architectural design principles courses, form the core of compulsory courses in the curriculum. These courses have a total of 40 SKS. Moreover, in semesters 6 and 7, the students can choose from a wide range of electives covering contents of human aspects of urban forms, inclusive design, tropical architecture and innovative landscape. The students prepare their undergraduate thesis, which is written in the final semester, through the modules about research methods in semesters 3 and 7 by drafting a topic and handing in a proposal.

The Bachelor's degree programme Urban and Regional Planning comprises 49 courses and 150 Indonesian credit points (SKS). The degree programme normally spans over eight semesters but can be completed in a maximum of fourteen semesters. The courses in the first two semesters convey basic knowledge of fundamentals of urban and regional planning, statistics for planning, natural resources and environment system, planning process and computation as well as mathematics, pancasila, civics and languages (Indonesian and English). Courses on the different urban and regional planning sciences (costal, regional, urban and site planning, housing and settlement, applied urban design and planning, urban management, transportation system) are offered from the third to the seventh semester. Moreover, the students need to complete several design and study projects. The elective courses, through which the students can gain further insights in some of these areas, are spread out over semester 7. The seventh semester also contains the mandatory internship. The students begin to prepare for their thesis in the fifth semester with the course "Research Methods" and write it in the eighth semester.

The Master's degree programme Geomatics Engineering encompasses 66 SKS and is designed for four semesters, but can be completed in three semesters and a maximum of eight semesters. The study programme offers four areas of specialization: "Geodesy and Geodynamics", "Surveying and Cadastre", "GIS (Geographic Information Systems), Remote Sensing, and Photogrammetry" and "Hydrography and Marine". The four areas of specialization are hosted in five laboratories: Geodesy and Geodynamics, Surveying and Cadastre, Geospatial, Geoinformatics and Geomarine Laboratory. The programme contains a significantly larger degree of elective courses than the Bachelor's degree programmes to give the students more room for specialization. It also includes some compulsory courses to teach the students additional skills in the core subject area (for instance in the field of spatial data programming, cartography and digital mapping, advanced geographic information system). In the third and fourth semester, students will have to conduct their research activities, while guided by an advisor.

Overall, the peers are in principle satisfied with the curricular structure of all programmes. They see that the programmes are well structured and that the modules build on each

other in a reasonable way, enabling the students to effectively reach the learning outcomes as laid down for the programmes as a whole.

However, the peers note that according to the study plan of the Bachelor's degree programme Architecture technical and constructive aspects of building process management hardly play a role. From the programme coordinators and the teaching staff the peers learn that the aspects of building construction and detail and execution planning are taught in the modules "Basic of Building Structure and Construction" in the second semester and "Structure and Construction in Architecture" in the third semester. The details of execution planning are part of the professional programme (PPAR) curriculum. Moreover, these aspects are included in the different design studios that form the core courses in the curriculum. The aspects of construction management are being addressed in the different elective courses that students have to choose in semesters 5 to 7 as well as in the professional programme course (PPAR). However, since the workload in this area is a maximum of 6 SKS in the Bachelor's degree programme and in the PPAR only 2 SKS, and since this content is not reflected in any of the theses submitted by ITS, the peers underline that the curriculum of the study programme must include modules which sufficiently deal with detail and execution planning as well as construction management.

Moreover, the peers wonder where in the Architecture curriculum the aspects of material science and building physics are taught, because they realize that graduates of this programme should be able to design, understand and realize the conceptualised building. While students of this programme seem to learn a lot about architectural design aspects, it seems, however, that little time and workload is attached to the realisation of these projects. From the programme coordinators, the peers learn that students learn about material science and building physics in the module "Architectural Science and Technology" in the third semester. The peers underline though that the literature references that are indicated for this course mainly concern urbanism and architecture. Therefore, the peers point out that ITS must demonstrate how the curriculum of the Architecture degree programme teaches the aspects of material science and building physics to a sufficient degree as it must include detailed modules. The peers urge ITS to present these aspects in the curriculum to a sufficient extent.

Furthermore, the peers ask where in the Architecture curriculum the aspects of public and building law are included, because it is important that students of this programme learn about administrative regulations and how to handle contracts, their design and consequences. The programme coordinators explain that this aspect is included in different design studios and taught in the module "Ethics and the Practice of Architecture" in the eighth semester. Moreover, the professional programme (PPAR) also deals with this aspect. How-

ever, since the workload in this area is a maximum of 2 SKS in the Bachelor's degree programme and in the PPAR only 2 SKS, the peers urge ITS to demonstrate how the curriculum of the Architecture degree programme teaches the aspects of public and building law to a sufficient degree as it necessarily needs to include detailed modules. This means that the peers ask ITS to present these aspects in the curriculum to a sufficient extent.

With regard to the Bachelor's degree programme Urban and Regional Planning the peers note that the curriculum does not contain sufficient workload about history in urban and regional planning. As this however is a crucial component of the curriculum, because it is the basis for the more method- and application-oriented courses, the peers urge ITS to add an additional module in history of urban and regional planning to the curriculum of the programme.

Furthermore, the peers wonder whether social challenges as for instance sustainable development goals and climate resilient planning are sufficiently included in the Urban and Regional Planning curriculum. The programme coordinators explain that a number of elective courses ("Sustainable Development" or "Disaster Risk management and Climate Change") address this aspect. The peers' impression of the comparatively low amount of climate and sustainability related topics in the curriculum is confirmed during the discussion with the industry representatives who explain that issues in development and infrastructure planning (climate change, green infrastructure and green financing) become more and more prominent in the urban and regional planning field. According to the private sector as well as the government, urban and regional planners increasingly need to be able to deal with climate resilience and green infrastructure and mainstream the corresponding efforts. With regard to the fact that the Indonesian government announced to pursue the goal of achieving energy-related carbon dioxide emissions to net zero by 2050, the peers underline that this is an issue that urban and regional planners need to deal with. Therefore, the peers point out that the Urban and Regional Planning curriculum must give more weight to climate resilience and green infrastructure in urban and regional planning and overall mainstream these efforts.

In addition, the peers realize that the Urban and Regional Planning degree programme deals with the aspects of planning and governance or urban and regional politics only to a little amount. The existing module "Law resp. Planning Policies and Administration" sets a different focus. Planning is strongly interrelated with policies and politics on the different decision-making levels of city, region and state. For planners it is important to get to know the contents, instruments and mechanism of this multi-level governance setting, which serve as background framework for planning, and to be able to address these by successfully conceptualizing planning processes. Besides formal regulations this includes informal

and participatory governance formats like stakeholder dialogues or citizen participation. Therefore, the peers recommend to include a module about planning and governance or urban and regional politics in order to strengthen the students' social sciences competencies.

With regard to the aspect of planning theory in the Bachelor's degree Urban and Regional Planning, the peers point to the fact that the module of the same title is rather late in the curriculum, because it forms the basis for the reflections and elaborations of the modules in the higher semesters. They recommend to move up the module "Planning Theory" from the eighth semester to an earlier semester (fourth or fifth semester) in order to provide sufficient knowledge for reflection already in an earlier phase of the programme.

Moreover, the peers wonder why students need to complete the compulsory module "Physics" in the first semester of the Bachelor's degree programme Urban and Regional Planning. From the programme coordinators, the peers learn that as a result of the regular curriculum evaluation, they introduced the physics module as the students deem this to be relevant for their further studies. They also explain that basic concepts of physics can be applied in urban and regional planning, for instance for projects related to gravity related issues. However, as has already been explained above, the peers consider other topics like for instance green infrastructure to be more important and indispensable. Therefore, they recommend to reconsider the module "Physics" as it does not seem to be necessary for the study programme.

Finally, the peers did not understand from the self-assessment Report and the discussions with the programme coordinators and the teaching staff how elective courses in the Geomatics Engineering degree programme must be selected. Students of this programme need to select five electives. ITS provided a list of elective courses based on the four specialization areas. This list, however, does not totally correspond with the electives suggested in the module descriptions, because for the specialization "Hydrography and Marine" only four electives are mentioned whereas for other specializations six or seven electives are listed. Therefore, the peers ask ITS to provide that the above mentioned information be provided together with the comment of the fulfilment of requirements of the university.

With regard to the internships, the peers learn that the fieldwork practice or the so-called "on job training" in companies is only mandatory in the Bachelor's degree programme Urban and Regional Planning. It usually takes a total of 3 to 6 months which is valued by the students as this allows them to apply the skills they learned in the programmes in a real working environment. The students highlight that the university is very supportive in finding placements for the internship and that they are always encouraged to gain as much practical experience as possible. 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 assessment methods to evaluate this phase is comprehensive and includes a written report, a seminar and an oral test. To what extent ITS must ensure that the credits awarded for the internship correspond with the actual workload of the students will be further explained in chapter 2.2. In this context, the peers are wondering why there is no internship in the other two degree programmes. From the programme coordinators of the Architecture degree programme, the peers learn that this is due to the fact that a mandatory internship which is worth 2 SKS is located in the 1 year-professional programme (PPAR) course that students have to pass after their Bachelor's studies in Architecture in order to become a professional architect. The professional programme encompasses 24 SKS and is supposed to convey further knowledge in the areas of sustainable architecture, building system and technology, advanced architectural theory as well as different architectural design projects. With regard to the Geomatics Engineering degree programme, the peers learn that the corresponding Bachelor's degree programme that ITS offers, already contains an internship. Nevertheless, the programme coordinators make convincingly clear that they encourage students to do internships.

Furthermore, the peers discuss with ITS the ways in which the students can improve their English proficiency. They learn that in the Bachelor's degree programmes there is a special international class, in which most of the modules are taught in English. Additionally, English literature is used occasionally as can be seen from the literature suggested for the individual modules in the module descriptions. In all study programmes, students have the possibility to join the English study club, which is offered by the Language Centre. Students are also obliged to achieve the required TOEFL score in order to graduate from their studies. The peers appreciate these efforts. However, the industry representatives also underline that the English skills of the students who absolve internships in their companies or of the graduates who are employed in these could still be improved. Therefore, the peers recommend to improve the English skills of the students.

Finally, the peers ask how the teaching staff and the prospective employers evaluate the soft skills of the students. They learn that the students from ITS are particularly 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 publicly speak and present in front of an audience, entrepreneurship and project management skills could still be improved. Consequently, the peers recommend to strengthen the soft skills of the students through designated coursework or integration into existing coursework, in particular public speaking, entrepreneurship and project management skills.

**Criterion 1.4 Admission requirements**

**Evidence:**

- Self-Assessment Report
- Academic regulations
- Students handbook
- Websites
- Discussions during the audit

**Preliminary assessment and analysis of the peers:**
According to the Self-Assessment Report, admission of new students to ITS 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.

There are three different paths of admission into the Bachelor's degree programmes:

1. National Selection of Higher Education or University (Seleksi Nasional Masuk Perguruan Tinggi Negeri, SNMPTN), a national admission system, which is based on the academic performance during high school.

2. Joint Selection of Higher Education or University (Seleksi Bersama Masuk Perguruan Tinggi Negeri, SBMPTN). This national selection test is based on the results of a test (UTBK) which is held every year for university candidates. It is a nationwide written test (subjects: mathematics, Bahasa Indonesia, English, physics, chemistry, biology, economics, history, sociology, and geography).

3. Independent Selection (Seleksi Seleksi Kemitraan Mandiri, SKM): Students are selected based on criteria determined by ITS itself. It mainly follows the results of UTBK, but also considers other citeria such as achievements and motivation of the students.

For the Master's degree programme Geomatics Engineering there are two admission pathways for applicants: regular or research-based programme. Applicants of the regular pathway need to have obtained a bachelor's degree with a minimum GPA of 3.0 from a programme accredited at least B by the national Indonesian accreditation agency, pass the entrance exam, submit two letters of recommendation and a research plan to be carried out in the programme as well as a TOEFL certificate with a minimum score of 450 or comparable certificates (e.g. IELTS). Applicants of the research pathway additionally need to have a research RPL that has been carried out and written in the form of a portfolio accompanied by evidence, which can be equivalent to a maximum load of 3 SKS. The research RPL

as referred to may be in the form of one scientific publication in a reputable international journal or in international seminar proceedings or in an accredited national journal or one patent that has been registered by the Directorate General of Intellectual Property - Ministry of Law and Human Rights - Republic of Indonesia. Applicants of the research pathway must also propose a research topic that has been consulted with prospective supervisors.

For each academic year, the university determines the ratio of students admitted through these different ways. Generally, the number of applications in the Bachelor's degree programmes is considerably higher than the number of admitted students. For the last two years 2020 and 2021, the acceptance rate was between 6,3 and 6,8% for the Bachelor's degree programme Architecture, 7,6 and 11,4% for the Bachelor's degree programme Urban and Regional Planning, and 100% for the Master's degree programme Geomatics Engineering. According to the programme coordinators, the low application rate for the Master's degree programme is due to the fact that a high number of Bachelor's graduates are sought by the industry and immediately employed.

The tuition fees for the programmes are determined by the Ministry of Finance based on a proposal from ITS. 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.

**Final assessment of the peers after the comment of the Higher Education Institution regarding criterion 1:**

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

# 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
- Discussions during the audit
- Partnership agreements with other universities
- Overview of student's mobility

**Preliminary assessment and analysis of the peers:**
Both Bachelor's degree programmes are designed for four years and the students need to achieve 150 Indonesian Credit Points (SKS, which is roughly equivalent to 240 ECTS; cf. chapter 2.2 for more details). Roughly 90% of these credit points are awarded for compulsory, around 10 % for elective courses. The Master's degree programme encompasses 66 SKS (which is equivalent to 105,6 ECTS) within two years. Each semester is equivalent to 16 weeks, including 14 weeks of learning activities and two weeks of examination (midterm and final exams). In this programme around 30% of the credit points are awarded for compulsory and 15% for elective courses and around 55% for the thesis and additional activities like writing a publication.

After analyzing 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 allow the students to define individual focuses through broad ranges of electives (see chapter 1.3 for more details). The students confirm that the structure of the programmes allow them to reach the learning outcomes within the regular duration (see chapter 2.2 for more details).

The peers notice that there are a number of quite small modules with only 2-3 credit points. They learn that this is due to some regulation by ITS and the government and that it is common in Indonesia to have overall smaller modules compared to the German (or European) standard. Overall, the peers regard the module structure to be adequate, also because all students confirm that they are used to having smaller modules and that this does not have negative implications on the overall workload (see chapter 2.2 for more details).

Moreover, regarding the Urban and Regional Planning degree programme, the peers note that ITS uses different module names for the module "Planning Policies and Administration". While in the study plan and in the module descriptions, the title "Planning Policies and Administration" is used, ITS makes use of the title "Planning Law and Administration" in the objective-module matrices. The peers recommend to use the title "Planning Law and Administration" throughout the programme related documents instead of "Planning Policies and Administration" as it better describes the content of the module. In addition, a

new module should be included addressing the field of planning and governance or urban and regional policies to strengthen the students' social sciences competences (see chapter 1.3 for more details).

In summary, the peers gain the impression that the choice of modules and the structure of the curriculum ensure 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 very clear that international recognition is one of ITS's primary goals for the next years. The peers point out that international mobility, with regard to lecturers as well as students, is a key factor in these efforts.

The peers learn that the university already provides various mobility opportunities for students. These include semesters abroad, short programmes, internships, and international conferences. To foster these, there are cooperation agreements with hundreds of partner institutions worldwide, with a certain focus on Asia (for instance Taiwan, China, Japan), but also including many institutions in Europe and North America. Partly due to the COVID-19 pandemic, the number of students participating in mobility programs in 2020 and 2021 was relatively low, but is expected to markedly increase again after the pandemic. An international office has been established in order to coordinate ITS's efforts and to support the students in the planning and administration of international mobility. Moreover, the university provides scholarships for international mobility programmes and manages various external scholarships sponsored by the Indonesian government, the US government or the European Union.

Furthermore, students of the Bachelor's degree programmes Architecture as well as Urban and Regional Planning have the possibility to join international classes known as IUP (International Undergraduate Programme). IUP Programme is a Bachelor's programme that implements English as the language of instruction, offers the regular undergraduate curricula and provides opportunities for students to take part in international activities.

Qualifications obtained at other universities in Indonesia or abroad are recognized in line with the courses at ITS. Before a stay abroad, the university concludes a learning agreement with the respective student to ensure that the courses taken are relevant to the study programme and can thus be recognized. As the students confirm, there are no problems with credit transfer or the organization of student mobility. They emphasize that the international office as well as their academic advisors are eager to support them and to find adequate study programs and courses.

The peers appreciate the efforts undertaken by the university to foster student mobility and they are very satisfied with the structures and support mechanisms for international mobility.

**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

**Preliminary assessment and analysis of the peers:**
Based on the National Standards of Higher Education of Indonesia (SNPT), the three programmes use a credit point system called SKS, which is regulated as follows:

- 1 SKS of teaching covers 50 minutes of contact hours + 60 minutes assignment/tutorial + 60 minute of self-studies per week
- 1 SKS of practical work covers 170 minutes per week
- 1 SKS of seminar covers 170 minutes per week

In comparison to the ECTS credit system, wherein 1 ECTS equals 25-30 hours of students' workload, it is determined that 1 SKS is awarded for 170 minutes of work per week. One semester usually consists of 14 class meetings. The students' workload (contact hours and self-studies) is measured in Indonesian credit points (SKS), and converted to the European Credit Transfer System (ECTS). Regarding the conversion from SKS to ECTS, ITS explains that 1 SKS equals 45.3 hours and thus 1.6 ECTS, based on 28.3 hours per ECTS. According to the legal requirements, the actual number is 150 SKS (equivalent to 240 ECTS) for the Bachelor's degree programmes and 66 SKS (equivalent to 105,6 ECTS) for the Master's degree programme. The peers acknowledge that a credit point system based on the students' workload is in place.

The workload is spread relatively evenly over the semesters. Moreover, the effective number of SKS the students can take depends on their achievements in the previous semester. In the Bachelor's degree programmes, if their GPA is less than 2.5, they can take up to 18,

between 2.5 and 3.0 up to 20, between 3.0 and 3.5 up to 22 and above 3.5 up to 24 SKS in one semester. In the Master's degree programme, they can take up to 12 SKS if their GPA is less than 3 and up to 15 SKS otherwise. The workload of the last semester or 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. 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 or 4 semesters respectively, although this is relatively rare due to the high workload in general.

The peers confirm that the workload in hours is indicated in the module descriptions and the distinction between classroom work and self-studies is made transparent and is in line with the credits awarded. At the end of each semester, the students' workload for every course is monitored and evaluated.

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 statistical data provided by ITS shows, the average amount of students who graduated on time in 2018 until 2020 ranged between 78 and 94 % in the Bachelor's degree programme Architecture and between 72 and 86% in the Bachelor's degree programme Urban and Regional Planning. In the Master's degree programme Geomatics Engineering the average length of study was 4,8 semesters between 2018 and 2021. According to the SAR, this is due to all the written examinations and also due to the fact that they have research and a final thesis or work next to studying. Additionally, the peers see that almost all students complete the degree programmes as there have only been 10 students of the Bachelor's degree programme Architecture, 8 students of the Bachelor's degree programme Urban and Regional Planning and 1 student of the Master's degree programme Geomatics Engineering who dropped out of the degree programmes in the last 3 years. The data verifies that all three degree programmes under review can be completed in the expected period.

However, with regard to the mandatory internship in the Bachelor's degree programme Urban and Regional Planning, the peers learn that the internship usually takes a total of 3 to 6 months, half of which is completed in a company and the other half at the university. While the internship is worth 3 SKS according to the study plan of the programme, the programme coordinators explain that the majority of the students use the semester break in order to absolve the mandatory internship. As has already been mentioned above, it is

determined that 1 SKS is awarded for 170 minutes (or 2,8 hours) of work per week. This means that the workload of the internship which is worth 3 SKS must not exceed 510 minutes (or 8,5 hours) of work per week. Taking into account that the students complete the internship full-time during their semester break, they exceed the planned workload of 8.5 hours per week for the internship. Therefore, the peers urge ITS to ensure that the credits awarded for the internship correspond with the actual workload of the students.

**Criterion 2.3 Teaching methodology**

**Evidence:**

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

**Preliminary assessment and analysis of the peers:**
As ITS explains in the Self-Assessment Report, various student-centered learning methods are utilized in the degree programmes under review. Through the Indonesian regulations on credit points (see chapter 2.2), an adequate balance between face-to-face activities and independent learning is already ensured for all courses. Besides the regular lectures, methods such as group discussions, project- and problem-based learning, simulations etc. are used. The students confirm that these methods are actually in use and that they are satisfied with the variety of teaching methods, which support them in achieving the learning outcomes.

During the classes, active and interactive teaching methods (e.g. lectures, discussions, reports, presentations, and group work) are applied. ITS wants to encourage the students to gain knowledge from different scientific areas and to introduce them to research activities. Teaching and learning is supported by a broad range of media, both traditional (books, papers) and online (videos, presentations etc.). The university's online learning management system (MyITS classroom) supports teachers and students in communicating and disseminating learning material. In the course of the Covid-19 pandemic, the university has swiftly switched to online learning with videoconferences, recorded videos and other media.

The peers consider the teaching methodology employed in the degree programs to be diverse, interactive and to show a healthy mixture between traditional and modern/alternative methods. They are well adapted to the aims and conditions of the individual courses and suitable to support the students in achieving the intended learning outcomes.

**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 support. Academic advice includes the academic advisors, the international office, the programme coordinators, the Dean and the supervisors for the theses and final projects. Non-academic support comprises the medical centre, the language centre, the academic writing centre, the career centre, the central library, computer laboratories and student dormitories.

The main contact person for every student is their academic advisor, who 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 support them in case of academic and non-academic problems. Each student meets his or her academic advisor on a regular basis (at least twice per semester), who is also responsible for monitoring the study progress. The academic advisor also has to approve the student's study plan for the semester. As the peers learn and highly appreciate, the study progress is not only monitored by the academic advisor on an individual basis, but the faculty is automatically alerted when students fall below a certain number of credit points per semester and are thus threatened with dropping out. In these cases, additional advice can be provided. Therefore, at the beginning of each semester, GPA 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. At the end of the semester, GPA evaluates the student's achievement under their supervision by checking the GPA that the students achieve.

Furthermore, there is supporting staff in the international office (cf. chapter 2.1), the career centre, the scholarship sector and the general academic administration. The career centre regularly organizes job fairs, seminars with potential employers, trainings for writing applications etc. in order to support the students in their career planning. Moreover, 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 thesis or final project course will be assigned one or two 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 thesis. There are regular meetings where the students present their results and receive feedback from the other members.

All students at UNDIP have access to the online-learning site (MyITS classroom). By using MyITS classroom, lecturers can upload their syllabus and learning materials or modules as well as assignment for students. Through MyITS classroom, students can also interact with other students and lecturers.

The peers conclude that there are enough resources available to provide individual assistance, advice, and support for all students. The support systems help the students to achieve the intended learning outcomes and to complete their studies successfully and without delay.

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

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

# 3. Exams: System, concept and organisation

**Criterion 3 Exams: System, concept and organisation**

**Evidence:**

- Self-Assessment Report
- Module descriptions for each degree programme

- Websites
- Academic regulations
- Sample 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 descriptions have been achieved. For this purpose, ITS utilizes various types of examination.

In each course, at least two assignments/quizzes, a mid-term and a final examination are employed. There are different assessment methods in the programmes, such as quizzes, written tests, practical performances, assignments, small projects, oral tests and presentations. In most courses, mid-term and final exam consist of written tests and additional quizzes or assignments are used. However, the other assessment methods are also used to a certain degree. Via the Academic Calendar, the students are informed about mid-term and final exams. The form and length of each exam is mentioned in the module descriptions that are available to the students via ITS' homepage and in the internal university system known as Information System on Academic, Research, and Community Service (myITS classroom). It is common to hold small quizzes every two or three weeks, but there are generally no unscheduled tests.

The final grade of each module is calculated based on the score of these individual kinds of assessment, whereby the lecturer determines the ratio between them in accordance with the Academic Guidelines. The exact formula is given in the module handbook. At the first meeting of a course, the students are informed about what exactly is required to pass the module and about how the final grade is determined through the teaching and learning plan. ITS uses a grading system with the grades A, AB, B, BC, C, D and E, where a C (equivalent to a Grade Point of 2) 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. Students who have obstacles due to illness or other reasons and are not able to fulfil 80% of the total course sessions need to inform the academic supervisor and related lecturers. The arrangement to re-sit an exam can be adjusted in advance as compensation for the student's disability by providing the evidence. Furthermore, students who are not able to attend the final exam due to illness or other reasons can provide proof and take the follow-up exam scheduled by the study programme.

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. Usually, there are additional practical assignments or quizzes. The students confirm that a variety of assessment methods is used, including traditional methods such as written or oral exams, but also presentations or project reports are utilized. The mid-term exams are carried out in the 8th and the final exams in the 16th week of the semester, whereas the smaller quizzes and assignments take place in the other weeks. The final grade is the sum of the sub exams. Although this means that the total number of tests taken during a semester is comparatively high, the students do not complain about this workload and instead 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 project (Bachelor's degree programmes) or a thesis (Master's degree programme) in the last 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. In the Master's degree programme Geomatics Engineering, students also have to determine their research topic from the beginning of their studies. Based on their study focus, students may choose the prospective thesis supervisor and join one of the five laboratories (Geodesy and geodynamic lab; surveying and cadastre lab; geospatial lab; geoinformation lab; geomarine lab) in order to conduct their research work. Afterwards, students need to pass the proposal exam which deals with the thesis proposal prepared by students based on their research activities in the proposal seminar, under the condition that they passed the courses in the previous two semesters. The proposal exam is measured through an assessment rubric that has been agreed upon by the study programmes.

Usually, there are one or two 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 final project or thesis in collaboration with the industry, she or he is also assigned a supervisor from the industry. After completing the work on the final project or 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 final project or thesis. There are two possibilities: either students can propose their own ideas or they can ask their academic advisor or other teachers for suggestions.

Furthermore, the peers did not understand from the conversations with the programme coordinators and the teaching staff of all degree programmes whether the presentation of design projects or other final projects are public for the students. However, the peers feel that students would benefit from being able to participate in discussions, for example, about the designs or generally the topics of the theses. Therefore, they recommend to check to what extent presentations and theses are public for the students.

Shortly before the online visit, the peers were provided with a selection of exams and final projects to check. They confirm that these represent an adequate level of knowledge as required by the EQF level 6 for the two Bachelor's programmes and EQF level 7 for the Master's programme. The forms of exams are oriented toward the envisaged learning outcomes of the respective courses, and the workload is distributed in an acceptable way.

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 ITS 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 ITS, 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, there are lecturers who hold a Master's degree and lecturers who hold a PhD degree. A full professor needs to hold a PhD degree. 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. The latter may become professors once they have earned a certain amount of credits with regard to their academic work.

There are 35 teaching staff for the Bachelor's degree programme Architecture (2 professors, 4 associate professors, 27 assistant professors, 2 lecturers), 23 for the Bachelor's degree programme Urban and Regional Planning (2 associate professors, 19 assistant professors, 2 lecturers), and 21 for the Master's degree programme Geomatics Engineering (1 professor, 4 associate professors, 14 assistant professors, 2 lecturers). The university encourages the teaching staff with a Master's degree to pursue further qualification. Those with a master's degree only teach in the two bachelor's programmes. These numbers mean that the ratio between academic staff and students is 1:12 in the Bachelor's degree programme Architecture, 1:24 in the Bachelor's degree programme Urban and Regional Planning, and 1:5 in the Master's degree programme Geomatics Engineering. In addition, the faculty regularly invites visiting lecturers from Indonesia and abroad to facilitate academic exchange. The academic staff is supported by a considerable number of administrative and technical employees at department, faculty, and university level.

Recruiting new teaching staff follows a defined procedure starting with a needs analysis of the degree programmes, 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 actively involved in research projects funded by grants from the Indonesian government, the university itself or other research funds, which results in a reasonable number of publications per year. ITS positions itself as a university with a strong research focus, which the peers appreciate. They also learn that students can be involved in research projects, for instance through their theses.

With regard to the absence of full professors in the Bachelor's degree programme Urban and Regional Planning and the low amount of full professors in the other two degree programmes, the peers learn from the programme coordinators that the academic position of

each staff relies on regulations by the Indonesian Ministry of Education that determines certain minimum credit points of experience for reaching the next level. Every teaching staff has responsibilities in the fields of teaching, research, and community service. The academic teaching staff must complete 200 credits in order to become an assistant professor, 400 credits in order to become an associate professor and between 800 and 900 credits in order to become full professor. In this context, one publication is normally considered to be worth 40 credits and teaching one class for one semester is worth 1 credit. Currently there are 2 staff members of the Urban and Regional Planning degree programme who already collected 850 credits and started the promotion process in order to become full professors. The peers support these efforts, but in light of the low amount of full professors and the high number of students per year, the peers recommend to increase the amount of full professors for all degree programmes.

In summary, the peers highlight the well qualified and engaged staff members and confirm that the composition and scientific orientation of the teaching staff – besides the mentioned small restriction – are suitable for successfully implementing and sustaining the degree programmes. Both students and staff members confirm that in case of questions or problems, there is always an academic advisor available to solve the issues together with the student.

**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 and the discussions during the online audit, ITS encourages the continuing professional development of its staff. For this purpose, various opportunities are provided. There is a mandatory didactic training for new academic staff that encompasses curriculum design, teaching material, and innovative teaching and learning methods. Moreover, workshops are held to refresh and to deepen various didactic competences in each semester. The lecturers can also regularly participate in external didactical trainings offered and funded by the government. Senior lecturers must mentor and train the newly recruited staff in three aspects: teaching, research, and community services. The junior staff has to assist the senior as a sit-in lecturer for a minimum of one semester.

The teaching staff is 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 to support academic mobility. In general, the staff exchange is managed and under the coordination of the Directorate of Human Resources and Organization (SDMO) of ITS. Particularly for junior lecturers with a master's degree, ITS offers systematic training to prepare them for acquiring a PhD abroad, for instance through English courses, information on foreign education systems, administrative support, and supporting (international) research collaborations. According to a statistical overview provided by ITS, in the last five years, lecturers of all three study programmes under review have been involved in international activities. They have been sent abroad to conduct doctoral programmes and research collaboration, for instance to the Kitakyushu University, Japan or to participate in international conferences or seminars.

Additionally, every year, the department of Geomatics Engineering holds an international event that involves participating countries from all over the world. This activity takes place within the framework of a conference and is supported by the students, researchers, lecturers and advisors from all over the world who lead discussions on certain topics. The Annual conference GEOICON (GEOmatics International CONference) invites the speakers at least from three different countries to share the most existing research in a certain topic that is related to the theme of GEOICON each year.

Moreover, the peers learn from the teaching staff that there are many different options to apply for funding for research projects, not only from ITS but also from the government and big companies the university collaborates with.

In summary, the peers appreciate the university's efforts in the further development of its employees and 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 and the community, through tuition fees and through grants for research projects in collaboration with industry. The figures presented by the university show that the faculty's income is stable and the funding of the degree programs is secured. The academic staff emphasize that from their point of view, all three programmes under review receive sufficient funding for teaching and learning activities as well as research, which results in well-equipped facilities and good access to literature, databases and modern software. The students confirm this positive impression and state their satisfaction with the available resources.

In the self-assessment report, ITS gives an extensive overview of the available learning spaces and libraries (university library and department library). Moreover, they list detailed information of all laboratories available per study programme. Due to the ongoing COVID-19 pandemic, it is not possible for the peer panel to travel to Indonesia and visit ITS in person. Therefore, the university has provided the peers with professional videos showing its campus with some central facilities, relevant research and teaching facilities and, in particular, all the different laboratories and studios available for the three study programmes. The university has licensed Microsoft Office and other standard software and provides the students full access to this software. The peers appreciate the range of learning tools and resources available to the students. They consider the university's facilities and available equipment in the labs to be of appropriate standards. The facilities offer sufficient opportunities for the professional and individual development of students and teachers.

However, the students point out that for the Bachelor's degree programme Architecture and Urban and Regional Planning some extra individual work places should be provided in order to facilitate group work projects. From the teaching staff, the peer group learns that for all students of both degree programmes there are dedicated work places (in- and outdoor) on the department level as well as on university level (library), but due to ongoing renovation work, some of these premises currently cannot be used. Consequently, the peers recommend to provide more extra individual work places for students.

In summary, the peer group judges the available funds, the technical equipment, and the infrastructure (laboratories, studios, library, seminar rooms etc.) to comply – besides the mentioned small restrictions – 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 ITS 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 all three programmes are published on the university's website and are thus accessible to the students as well as to all stakeholders.

The peers observe that they contain the necessary information about the persons responsible for each module, the teaching methods and workload, the credit points awarded, the intended learning outcomes, the applicability, the admission and examination requirements, and the forms of assessment, and details explaining how the final grade is calculated.

However, the peers note that a number of literature references in all three study programmes are not up-to-date, because they date back to the 1970s or 1980s. The peers learn from the programme coordinators that all study programmes continuously encourage their students to also study independently by looking for current literature in the library or the internet. Moreover, they explain that the teaching staff regularly shares current literature references with their students. The peers understand that the literature actually used in the study programmes goes beyond the literature listed in the module descriptions. Consequently, the peers recommend to provide an adequate and updated list of relevant literature references in the module descriptions of all three study programmes.

Furthermore, the peers realize that there is a certain discrepancy between individual module contents and their title in the Geomatics Engineering degree programme. This leads to a repetition and/or overlap of subjects in the module descriptions. The peers wonder why the module "Spatial data programming" for instance is not rather carrying the title "Geo statistics". From the programme coordinators and the teaching staff, the peers learn that this module is related to the Bachelor's degree programme in Geomatics Engineering. The module from the Master's degree programme is supposed to repeat the statistical content from the Bachelor's curriculum. Nevertheless, the module documentation is not fully consistent in terms of description (programming with R), learning outcomes (spatial analysis and image classification), contents (map projections), and reading list. However, as a number of other modules show this mentioned discrepancy, the peers recommend to rework

the module descriptions in order that title and module content better comply with each other.

Related to this, the peers point out that the module descriptions of the Master's degree programme Geomatics Engineering do not provide any information about the use of modern programming languages. As has already been mentioned above, within the framework of the module "Spatial data programming", students are supposed to use different programming languages such as Python. As it would be useful for both prospective students and students enrolled to know, the peers recommend that the module descriptions better explain to what extent modern programming languages (e.g. Python) are used in the programme.

**Criterion 5.2 Diploma and Diploma Supplement**

**Evidence:**

- Sample Transcript of Records 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 three 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. The Diploma Supplements are bilingual (Bahasa and English). However, the peers note that neither the Transcript of Records nor the Diploma Supplement contains the conversion of SKS into ECTS. ITS must indicate how many ECTS credits are awarded for every individual degree programme. Therefore, the peers point out that the Diploma Supplement needs to follow the European template and needs to include statistical data about the distribution of final grade according to the ECTS Users' Guide.

**Criterion 5.3 Relevant rules**

**Evidence:**

- Self-Assessment Reports
- All relevant regulations on the studies, examination, admission and quality assurance are published on the university's website

**Preliminary assessment and analysis of the peers:**
The auditors confirm that the rights and duties of both ITS and the students are clearly defined and binding. All rules and regulations are published on the university's website in Bahasa as well as in English 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 5.2:

ITS provided a new sample of the Diploma Supplement that now contains the conversion of SKS into ECTS. ITS now indicates how many ECTS credits are awarded for every individual degree programme. Therefore, the peers consider this requirement to be fulfilled as the Diploma Supplement follows the European template and includes statistical data about the distribution of final grade according to the ECTS Users' Guide.

# 6. Quality management: quality assessment and development

**Criterion 6 Quality management: quality assessment and development**

**Evidence:**

- Self-Assessment Report
- ITS Guidebook on internal quality assurance
- Academic regulations
- Discussions during the audit

**Preliminary assessment and analysis of the peers:**
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.

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). ITS as an institution as well as all three degree programmes under review have received the highest accreditation status (A) from BAN-PT.

SMPI encompasses all activities focused on implementing measures for improving the teaching and learning quality at the university. ITS has a Quality Assurance Office (KPM), which conducts regular scans of academic and non-academic quality criteria within the institution. Apart from this office, there are different quality assurance units in place, such as the Faculty Quality Team (TMF), Department Quality Team (TMD), and Degree program Quality Team (TMP). Different measures are taken to gather information about a variety of qualitative aspects of the institution.

Since ITS 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.

On the institutional level, ITS annually carries out an SPMI evaluation of ten standards concerning management, resources, strategic development and quality assurance procedures. The performance of the departments is continuously checked through a specific information system. There is a major curriculum revision process for each programme every four years and a minor one every year (cf. chapter 1). The graduates are followed by ITS through a regular tracer study conducted by the career centre, although the peers note that no results of these studies have been provided for the Bachelor's degree programme Architecture and that the reports are not easily accessible through the website. Internal and external stakeholders give input through these processes in various ways.

Lastly, at the end of each semester, the students give their feedback on the courses by filling out the questionnaire online. The questionnaires are developed by the course survey committee and include questions with respect to the courses in general and about the teachers' performance. 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 already mentioned 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. The peers particularly appreciate that ITS implemented an advisory board consisting of government, alumni, different associations and other stakeholders who are involved in modifying and improving the curricula of the degree programmes.

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 who 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 ITS are well established and work under participation of all stakeholders.

In summary, the peers are satisfied with the quality management system at ITS, 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 ITS does not address this in its statement, the peers stick to their previous impression.

# D Comment of the Higher Education Institution

ITS provided a short statement and submitted the following documents:

- Sample of Diploma Supplement
- Academic Rules regarding European credit transfer

# E Summary: Peer recommendations (15.11.2022)

The peers summarize their analysis and final assessment for the award of the seals as follows:

| Degree Programme | ASIIN-seal | Subject-specific label | Maximum duration of accreditaiton |
|---|---|---|---|
| Ba Architecture | With requirements for one year | - | 30.09.2028 |
| Ba Urban and Regional Planning | With requirements for one year | - | 30.09.2028 |
| Ma Geomatics Engineering | Without requirements for one year | - | 30.09.2028 |

## Requirements

**For Ba Architecture**

A 1. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with detail and execution planning & construction management.

A 2. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with material science & building physics.

A 3. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with public & building law.

**For Ba Urban and Regional Planning**

A 5. (ASIIN 2.2) Ensure that the credits awarded for the internship correspond with the actual workload of the students.

A 6. (ASIIN 1.3) An additional module in history of urban and regional planning must be added to the curriculum of the programme.

A 7. (ASIIN 1.3) The curriculum must give more weight to climate resilience and green infrastructure in urban and regional planning and overall mainstream these efforts.

## Recommendations

**For all degree programmes**

E 1. (ASIIN 5.1) It is recommended to provide an adequate and updated list of relevant literature references in the module descriptions.

E 2. (ASIIN 1.3) It is recommend to strengthen the soft skills of the students through designated coursework or integration into existing coursework, in particular public speaking, entrepreneurship and project management skills.

E 3. (ASIIN 1.3) It is recommended to improve the English skills of the students.

E 4. (ASIIN 3) It is recommended to check to what extent presentations and theses are public for the students.

E 5. (ASIIN 4.1) It is recommended to increase the amount of full professors.

**For Ba Architecture and Ba Urban and Regional Planning**

E 6. (ASIIN 4.3) It is recommended to provide more extra individual work places for students.

**For Ba Urban and Regional Planning**

E 7. (ASIIN 1.3) It is recommended to include a module about planning and governance or urban and regional politics in order to strengthen the students' social sciences competencies.

E 8. (ASIIN 1.3) It is recommended to move up the module "Planning Theory" from the eighth semester to an earlier semester (fourth or fifth semester) in order to provide sufficient knowledge for reflection already in an earlier phase of the programme.

E 9. (ASIIN 1.3) It is recommended to reconsider the module "Physics" as it does not seem to be necessary for the study programme.

E 10. (ASIIN 2.1) It is recommended to use "Planning Law & Administration" instead of "Planning Policies & Administration".

**For Ma Geomatics Engineering**

E 11. (ASIIN 5.1) It is recommended to rework the module descriptions in order that title and module content better comply with each other.

E 12. (ASIIN 5.1) It is recommended that the module descriptions better explain to what extent modern programming language (e.g. Python) is used in geoinformation.

# F Comment of the Technical Committee 03 – Civil Engineering, Geodesy and Architecture (21.11.2022)

*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 | Subject-specific label | Maximum duration of accreditaiton |
|---|---|---|---|
| Ba Architecture | With requirements for one year | - | 30.09.2028 |
| Ba Urban and Regional Planning | With requirements for one year | - | 30.09.2028 |
| Ma Geomatics Engineering | Without requirements for one year | - | 30.09.2028 |

## Requirements

**For Ba Architecture**

A 1. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with detail and execution planning & construction management.

A 2. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with material science & building physics.

A 3. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with public & building law.

**For Ba Urban and Regional Planning**

A 4. (ASIIN 2.2) Ensure that the credits awarded for the internship correspond with the actual workload of the students.

A 5. (ASIIN 1.3) An additional module in history of urban and regional planning must be added to the curriculum of the programme.

A 6. (ASIIN 1.3) The curriculum must give more weight to climate resilience and green infrastructure in urban and regional planning and overall mainstream these efforts.

## Recommendations

### For all degree programmes

E 1. (ASIIN 5.1) It is recommended to provide an adequate and updated list of relevant literature references in the module descriptions.

E 2. (ASIIN 1.3) It is recommend to strengthen the soft skills of the students through designated coursework or integration into existing coursework, in particular public speaking, entrepreneurship and project management skills.

E 3. (ASIIN 1.3) It is recommended to improve the English skills of the students.

E 4. (ASIIN 3) It is recommended to check to what extent presentations and theses are public for the students.

E 5. (ASIIN 4.1) It is recommended to increase the amount of full professors.

### For Ba Architecture and Ba Urban and Regional Planning

E 6. (ASIIN 4.3) It is recommended to provide more extra individual work places for students.

### For Ba Urban and Regional Planning

E 7. (ASIIN 1.3) It is recommended to include a module about planning and governance or urban and regional politics in order to strengthen the students' social sciences competencies.

E 8. (ASIIN 1.3) It is recommended to move up the module "Planning Theory" from the eighth semester to an earlier semester (fourth or fifth semester) in order to provide sufficient knowledge for reflection already in an earlier phase of the programme.

E 9. (ASIIN 1.3) It is recommended to reconsider the module "Physics" as it does not seem to be necessary for the study programme.

E 10. (ASIIN 2.1) It is recommended to use "Planning Law & Administration" instead of "Planning Policies & Administration".

### For Ma Geomatics Engineering

E 11. (ASIIN 5.1) It is recommended to rework the module descriptions in order that title and module content better comply with each other.

E 12. (ASIIN 5.1) It is recommended that the module descriptions better explain to what extent modern programming language (e.g. Python) is used in geoinformation.

# A Decision of the Accreditation Commission (09.12.2022)

*Assessment and analysis for the award of the ASIIN seal:*

The Accreditation Commission discusses the accreditation procedure and follows the assessment of the peers and the TC without any changes.

The Accreditation Commission decides to award the following seals:

| Degree Programme | ASIIN-seal | Subject-specific label | Maximum duration of accreditaiton |
|---|---|---|---|
| Ba Architecture | With requirements for one year | - | 30.09.2028 |
| Ba Urban and Regional Planning | With requirements for one year | - | 30.09.2028 |
| Ma Geomatics Engineering | Without requirements for one year | - | 30.09.2028 |

## Requirements

**For Ba Architecture**

A 1. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with detail and execution planning & construction management.

A 2. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with material science & building physics.

A 3. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with public & building law.

**For Ba Urban and Regional Planning**

A 4. (ASIIN 2.2) Ensure that the credits awarded for the internship correspond with the actual workload of the students.

A 5. (ASIIN 1.3) An additional module in history of urban and regional planning must be added to the curriculum of the programme.

A 6. (ASIIN 1.3) The curriculum must give more weight to climate resilience and green infrastructure in urban and regional planning and overall mainstream these efforts.

## Recommendations

**For all degree programmes**

E 1. (ASIIN 5.1) It is recommended to provide an adequate and updated list of relevant literature references in the module descriptions.

E 2. (ASIIN 1.3) It is recommend to strengthen the soft skills of the students through designated coursework or integration into existing coursework, in particular public speaking, entrepreneurship and project management skills.

E 3. (ASIIN 1.3) It is recommended to improve the English skills of the students.

E 4. (ASIIN 3) It is recommended to check to what extent presentations and theses are public for the students.

E 5. (ASIIN 4.1) It is recommended to increase the amount of full professors.

**For Ba Architecture and Ba Urban and Regional Planning**

E 6. (ASIIN 4.3) It is recommended to provide more extra individual work places for students.

**For Ba Urban and Regional Planning**

E 7. (ASIIN 1.3) It is recommended to include a module about planning and governance or urban and regional politics in order to strengthen the students' social sciences competencies.

E 8. (ASIIN 1.3) It is recommended to move up the module "Planning Theory" from the eighth semester to an earlier semester (fourth or fifth semester) in order to provide sufficient knowledge for reflection already in an earlier phase of the programme.

E 9. (ASIIN 1.3) It is recommended to reconsider the module "Physics" as it does not seem to be necessary for the study programme.

E 10. (ASIIN 2.1) It is recommended to use "Planning Law & Administration" instead of "Planning Policies & Administration".

**For Ma Geomatics Engineering**

E 11. (ASIIN 5.1) It is recommended to rework the module descriptions in order that title and module content better comply with each other.

E 12. (ASIIN 5.1) It is recommended that the module descriptions better explain to what extent modern programming language (e.g. Python) is used in geoinformation.

# B Fulfilment of Requirements (08.12.2023)

## Analysis (1) of the experts and the Technical Committee (20.11.2023)

### Requirements

**For Ba Architecture**

A 1. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with detail and execution planning & construction management.

| **Initial Treatment** | |
|---|---|
| Experts | Fulfilled.<br>Justification: Modules which deal with detail and execution planning & construction management in the 2018-2023 curriculum were given in studio courses each semester, in addition to courses of Basic of Building Structure and Construction (2nd semester, 4.8 ECTS) and Structure and Construction in Architecture (3rd semester, 4.8 ECTS). Execution planning topics in studio course include detailed design integration, cost estimation, permitting and regulatory compliance, among others. Additionally, in the planned 2023-2028 curriculum, the compulsory course 'Basic Design Management' is added in semester 5, comprising 3 SKS (4.8 ECTS). An updated module handbook has been submitted together with the university's statement. |
| TC 03 | Fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes. |
| AC | Fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC 03 without any changes. |

A 2. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with material science & building physics.

| **Initial Treatment** | |
|---|---|
| Experts | Fulfilled.<br>Justification: Material science and building physics modules were included in several compulsory courses: Architectural Science and |

| | |
|---|---|
| | Technology (4.8 ECTS), Building Services (4.8 ECTS), Architectural Ecology (4.8 ECTS) and elective courses: Architecture Engineering 1 & 2 (total 9.6 ECTS), Tectonics (4.8 ECTS). Additionally, ITS updated the information within the module handbook that reflects the topic and incorporated material science and building physics topics in the newly developed course of Disaster Responsive Design in the curriculum 2023-2028. An updated module handbook has been submitted together with the university's statement. |
| TC 03 | Fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes. |
| AC | Fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC 03 without any changes. |

A 3. (ASIIN 1.3) The curriculum of the study programme must include modules which sufficiently deal with public & building law.

| **Initial Treatment** | |
|---|---|
| Experts | Fulfilled.<br>Vote: unanimous<br>Justification: Contents associated with public and building law were integrated in the studio courses (starting at the 3rd semester, in particular for topics related to building regulation and site analysis) and other courses such as Introduction to Urban Design, as well as Ethics and the Practice of Architecture. Topics related to public and building laws include building codes, zoning regulations, regulation on land-use, accessibility law, historic preservation and health & safety regulation among others. ITS submitted the corresponding module descriptions together with its statement. |
| TC 03 | Fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes. |
| AC | Fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC 03 without any changes. |

**For Ba Urban and Regional Planning**

A 4. (ASIIN 2.2) Ensure that the credits awarded for the internship correspond with the actual workload of the students.

| Initial Treatment | |
|---|---|
| Experts | Not completely fulfilled.<br>Justification: The credits awarded for the practical work unit were not revised in the 2018-2023 curriculum, as the curriculum was to be replaced by the 2023-2028 curriculum. In the 2023-2028 curriculum, the credits awarded for the practical work unit were revised to better reflect the actual workload of the students. Currently, students are awarded 4 credits (6.4 ECTS) for completing the internship. Students are required to complete a minimum of three months which comprises two months in the office and one month on-campus to write and submit their practical work report. The experts understand that ITS raised the credits that are awarded for the internship from 3 to 4 SKS. However, they think that the more target-oriented solution is to make students spend more time (3 months) in the company and ask them only to submit a short report about their experiences that should be written during the internship. The main learning effect is achieved by a longer insight into practice of office work. |
| TC 03 | Not completely fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes and underlines that the complete internship should be spent within the company. |
| AC | Not completely fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC 03 without any changes. |

A 5. (ASIIN 1.3) An additional module in history of urban and regional planning must be added to the curriculum of the programme.

| Initial Treatment | |
|---|---|
| Experts | Fulfilled.<br>Justification: According to the experts' remarks on Planning Theory, ITS did not add extra workload to the history in urban and regional planning module in the old curriculum because a new curriculum plan replaced it. However, the new curriculum integrates history-related content into the Planning Theory and Introduction to Urban and Regional Planning modules. ITS submitted the corresponding module descriptions together with its statement. |
| TC 03 | Fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes. |
| AC | Fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC 03 without any changes. |

A 6. (ASIIN 1.3) The curriculum must give more weight to climate resilience and green infrastructure in urban and regional planning and overall mainstream these efforts.

| **Initial Treatment** | |
|---|---|
| Experts | Fulfilled.<br>Vote: unanimous<br>Justification: In the 2018-2023 curriculum, contents associated with sustainable development goals, green infrastructure, climate change and climate change resilience can be found in elective courses named Sustainable Development and Disaster Risk Management (now Disaster and Climate Risk Resilience). Additional green contents can also be found in other courses, such as Regional Planning, Urban and Regional Infrastructure, Natural Resources and Environmental Systems, Urban Economics, Coastal Planning, and Housing and Settlements. Furthermore, Sustainable Development and Disaster and Climate Risk Resilience are no longer elective courses in the 2023-2028 curriculum, but have been upgraded to compulsory modules. ITS submitted the corresponding module descriptions together with its statement. |
| TC 03 | Fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes. |
| AC | Fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC 03 without any changes. |

# Decision of the Accreditation Commission (08.12.2023)

| **Degree programme** | **ASIIN-label** | **Subject-specific label** | **Accreditation until max.** |
|---|---|---|---|
| Ba Architecture | All requirements fulfilled | - | 30.09.2028 |
| Ba Urban and Regional Planning | Requirement A4 not completely fulfilled | - | 6 months prolonging |

# Analysis (2) of the experts and the Technical Committee (10.06.2024)

## Requirement

**For Ba Urban and Regional Planning**

A 1. (ASIIN 2.2) Ensure that the credits awarded for the internship correspond with the actual workload of the students.

| **Initial Treatment** | |
|---|---|
| Experts | Not completely fulfilled.<br>Justification: The credits awarded for the practical work unit were not revised in the 2018-2023 curriculum, as the curriculum was to be replaced by the 2023-2028 curriculum. In the 2023-2028 curriculum, the credits awarded for the practical work unit were revised to better reflect the actual workload of the students. Currently, students are awarded 4 credits (6.4 ECTS) for completing the internship. Students are required to complete a minimum of three months which comprises two months in the office and one month on-campus to write and submit their practical work report. The experts understand that ITS raised the credits that are awarded for the internship from 3 to 4 SKS. However, they think that the more target-oriented solution is to make students spend more time (3 months) in the company and ask them only to submit a short report about their experiences that should be written during the internship. The main learning effect is achieved by a longer insight into practice of office work. |
| TC 03 | Not completely fulfilled.<br>Justification: The TC 03 follows the assessment of the experts without any changes and underlines that the complete internship should be spent within the company. |
| AC | Not fulfilled.<br>Justification: The AC follows the assessment of the experts and the TC without any changes and underlines that the complete internship should be spent within the company. |
| **Secondary Treatment** | |
| Experts | Fulfilled.<br>Justification: Students are awarded 4 SKS (6.4 ECTS) for completing the Practical Work unit (internship) and are required to complete a minimum of three months in the company to achieve the maximum learning effect. The Practical Work report is to be writ- |

| | |
|---|---|
| | ten during the practical work period. The Practical Work Guidelines have been updated to reflect the changes and the updated guidelines have also been disseminated to the students. |
| TC 03 | Fulfilled.<br>Justification: The TC follows the assessment of the experts without any changes. |

# Decision of the Accreditation Commission (28.06.2024)

| **Degree programme** | **ASIIN-label** | **Subject-specific label** | **Accreditation until max.** |
|---|---|---|---|
| Ba Urban and Regional Planning | All requirements fulfilled | - | 30.09.2028 |

# Appendix: Programme Learning Outcomes and Curricula

According to the Website the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Architecture:

Table 1.1 Program Learning Outcomes of BoA

| | Program Learning Outcomes (PLOs) | Keyword | Main Reference |
|---|---|---|---|
| 1 | Devoted to One Almighty God and capable of maintaining religiosity and showing respect the value of humanity. | Ethics-Individual | ITS/Faculty Vision; IQF/SN DIKTI Analysis |
| 2 | Capable of participating and contributing to environmental sustainability, quality of society, nationalism, citizenship and civilization which are based on law and the national fundamental principles of Indonesia (Pancasila). | Ethics-Society/environment | I ITS/Faculty Vision; IQF/SN DIKTI Analysis |
| 3 | Capable of showing respect on academic ethic, norm and value, responsibility, independence, perseverance, value of entrepreneurship and teamwork. | Ethics-academics | ITS/Faculty Vision; IQF/SN DIKTI Analysis |
| 4 | Capable of implementing scientific, creative, and design thinking, and conducting original architectural studies and design in the form of design project and/or research's report. | Thinking | ITS/Faculty Vision; IQF/SN DIKTI Analysis |
| 5 | Capable of demonstrating qualified and measurable works, conducting self-evaluation and supervision, and establishing network in the national and international levels. | Performance | I ITS/Faculty Vision; IQF/SN DIKTI Analysis |
| 6 | Capable of mastering theoretical concepts of architecture, architectural design, building structural system and services. | Concept | Internal/External Evaluation |
| 7 | Capable of mastering principles of architectural design and design method. | Method | Internal/External Evaluation |
| 8 | Capable of mastering principles of building science and technology, landscape, urban planning and design, housing & settlement and ecology that put reference on local context. | Principle | Internal/External Evaluation |
| 9 | Capable of mastering architectural communication and presentation techniques. | Communication-Technique | Internal/External Evaluation |
| 10 | Capable of making concept of architectural design that integrates the study on local environment and behavior, technical aspects and architectural values. | Concept Making | Internal/External Evaluation |
| 11 | Capable of independently designing a research-based architecture, and producing creative, contextual and theoretically valid architectural works. | Designing | Internal/External Evaluation |
| 12 | Capable of communicatively presenting architectural thoughts and design in the form of oral presentation, writing, manual and digital graphic works and models. | Communication | Internal/External Evaluation |
| 13 | Capable of utilizing design knowledge within the scope of building construction and supervision. | Supervision | Internal/External Evaluation |

The following **curriculum** is presented:

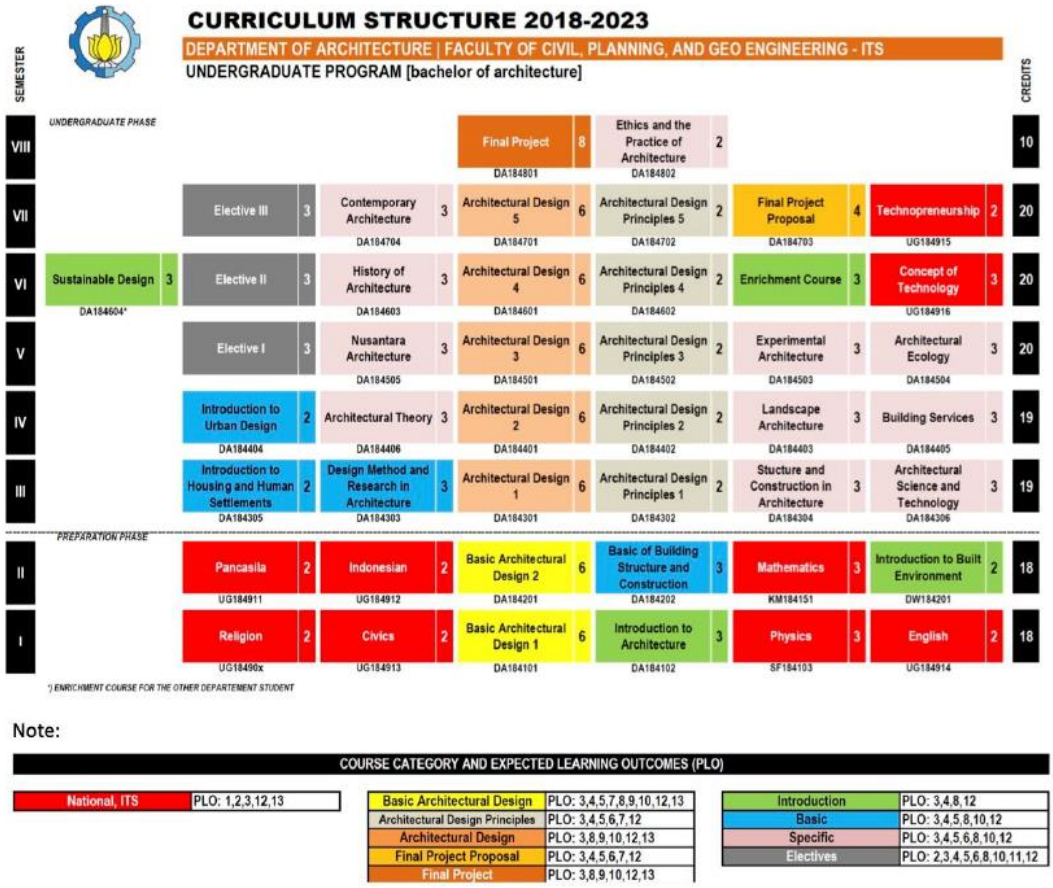


Figure 1.2 BoA Curriculum Structure

According to the Website the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor's degree programme Urban and Regional Planning:

Table 1.5 Program Learning Outcomes of BoURP

| | |
|---|---|
| PLO-1 | Graduates understand urban and regional planning theories, concepts, and techniques |
| PLO-2 | Graduates can apply urban and regional planning theories concepts and techniques |
| PLO-3 | Graduates can apply planning methods in decision-making processes |
| PLO-4 | Graduates can formulate planning concepts to respond to strategic issues through observation and spatial, social, economic, and environmental data |
| PLO-5 | Graduates can manage data using ICT and produce communicable public information |
| PLO-6 | Graduates can analyse urban, regional, and coastal properties to provide essential information for planning and modelling |
| PLO-7 | Graduates can compile alternative spatial models in the form of scenarios using qualitative and quantitative approaches; setting the pattern of space and structure of urban, regional and coastal areas; and recommending suitable solutions |
| PLO-8 | Graduates can produce creative, innovative, and sustainable planning that meets public needs, with the plans being evaluated against planning rules and theories and communicated visually, verbally and in writing so that they can be academically accounted for |
| PLO-9 | Graduates demonstrate the professional skills required to be effective and successful in today's workplace, including the ability to work well in multi-disciplinary teams, the ability to create job opportunities, the ability to formulate and solve problems, the ability to communicate effectively and the ability to uphold planning ethics and professionalism |
| PLO-10 | Graduates demonstrate positive attitudes that are helpful to society, such as devotion to the One Almighty God, accountability, social and environmental responsibility and upholding the moral and ethical values of humanity |
| PLO-11 | Graduates internalise cultural diversity, local wisdom, values, and norms in the urban and regional planning process |

The following **curriculum** is presented:

| SEMESTER | Curriculum Map | | | | | | |
|---|---|---|---|---|---|---|---|
| VIII | Planning Policies and Administration | Planning Evaluation Techniques | Development Financing | Planning Theories | Final Project | | |
| VII | Elective Course (Cross Departement) | Elective Course (Departement) | Elective Course (Departement) | Internship | Seminar | Technopreneurship | |
| VI | Housing And Settlement | Community Development | Urban Management | Applied Coastal Planning | Apllied Regional Planning | Insights and Technology Applications | |
| V | Coastal Planning | Regional Planning | Research Methods | Regional Economics | Applied Urban Planning | Applied Urban Design | |
| IV | Urban Planning | Urban and Regional Infrastructure | Urban Economics | Location and Spatial Analysis | Site Planning | Applied Transportation Planning | |
| III | Urban Morphology and Design Theory | Transportation System | Land Use Planning and Development | Planning Information System | Planning Analysis Method | Applied Planning Process | |
| II | Social System and Demography | Planning Process | Planning Computation | Indonesian | Mathematics | Introduction to Architecture, Design, and Planning | Pancasila |
| I | Planning Statistics | Natural Resources and Environmental System | Introduction to Urban and Regional Planning | Religion | Physic | English | Civics |

NOTE:

| Colour | Course Category | Percentage |
|---|---|---|
| | General Knowledge | 16% |
| | Basic course of Urban and Regional Planning | 22% |
| | Intermediate course of Urban and Regional Planning | 33% |
| | Advance course of Urban and Regional Planning | 29% |

Figure 1.3 BoURP Curriculum Map

According to the Self-Assessment Report the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme Geomatics Engineering:

Table 1.8 Program Learning Outcomes of MofGE

| | |
|---|---|
| PLO-01 | Having in-depth and specific knowledge of mathematical and statistical methods, and capable of accomplishing, developing, and making use of complex and novel evaluation models relating all areas of geomatics engineering, e.g., geodesy & geodynamics; remote sensing, GIS, and photogrammetry; hydrography & marine; and surveying & cadastre |
| PLO-02 | Able to develop and apply the Earth science and technology with an interdisciplinary and multidisciplinary approach that integrates the results of research on the area of geomatics engineering, e.g., geodesy & geodynamics; remote sensing, GIS, and photogrammetry; hydrography & marine; and surveying & cadastre |
| PLO-03 | Able to identify, analyze, develop, and provide an alternative use of science and technology in geomatics engineering, e.g., geodesy & geodynamics; remote sensing, GIS, and photogrammetry; hydrography & marine; and surveying & cadastre to support development in the information and globalization era. |
| PLO-04 | Able to conduct and develop research and innovative methods in the field of geomatics, either aimed at the development of science or to be applied. |
| PLO-05 | Able to manage research for expansion that is beneficial to society and science and able to get national and international recognition. |
| PLO-06 | Able to develop logical, critical, systematic, and creative thinking through scientific research, the creation of designs or works of art in the field of science and technology which concerns and applies the humanities value in accordance with their field of expertise, prepares scientific conception and result of study based on rules, procedures and scientific ethics in the form of a thesis or other equivalent form, and uploaded on a college page, as well as papers published in scientific journals accredited or accepted in international journals. |
| PLO-07 | Able to adapt and transform along with the development of geospatial science and technology in its working environment. |
| PLO-08 | Capable of managing, developing, and maintaining networking with colleagues, peers within the broader institutes, and research community. |
| PLO-09 | Able to perform academic validation or studies in accordance with their areas of expertise in solving problems in relevant communities or industries through the development of knowledge and expertise. |
| PLO-10 | Internalizing spirit of independence, struggle, and entrepreneurship. |
| PLO-11 | Have good morals, ethics, personality, and communication skill in each activity with respect for cultural diversity, views, beliefs, and religious attitude. |
| PLO-12 | Demonstrating an attitude of responsibility on work in their field of expertise independently and within an interdisciplinary team. |

The following **curriculum** is presented:

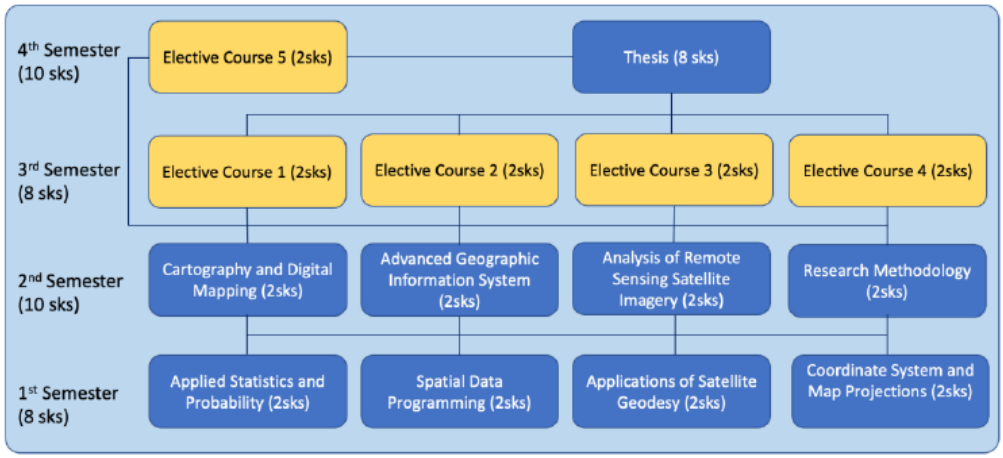


Figure 1.4 Curriculum map of MofGE