



ASIIN Seal

Accreditation Report

Bachelor's Degree Programme
Forestry

Provided by
Universitas Jambi

Version: 24.03.2023

Table of Content

A About the Accreditation Process.....	3
B Characteristics of the Degree Programme.....	4
C Peer Report for the ASIIN Seal	5
1. The Degree Programme: Concept, content & implementation	5
2. The degree programme: structures, methods and implementation.....	11
3. Exams: System, concept and organisation.....	17
4. Resources	20
5. Transparency and documentation.....	24
6. Quality management: quality assessment and development	26
D Additional Documents	28
E Comment of the Higher Education Institution (20.01.2022)	28
F Summary: Peer recommendations (19.02.2022)	29
G Comment of the Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture (10.03.2022)	31
H Decision of the Accreditation Commission (18.03.2022)	32
I Fulfilment of Requirements (24.03.2023).....	34
Analysis of the peers and the Technical Committee/s (16.03.2023).....	34
Decision of the Accreditation Commission (24.03.2023)	35
Appendix: Programme Learning Outcomes and Curricula	36

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
Kehutanan	Forestry	ASIIN	/	08
<p>Date of the contract: 24.11.2020</p> <p>Submission of the final version of the self-assessment report: 30.08.2021</p> <p>Date of the onsite visit: 30.11. – 02.12.2021</p> <p>at: digital audit</p>				
<p>Peer panel:</p> <p>Prof. Dr. Tobias Cremer, Eberswalde University for Sustainable Development</p> <p>Prof. Dr. Jürgen Pretzsch, Technische Universität Dresden</p> <p>Divrilia Perdana, Researcher</p> <p>Intan Wahda Nurlia, Student at Bogor Agricultural University</p>				
<p>Representative of the ASIIN headquarter: Christin Habermann</p>				
<p>Responsible decision-making committee: Accreditation Commission for Degree Programmes</p>				
<p>Criteria used:</p> <p>European Standards and Guidelines as of May 15, 2015</p> <p>ASIIN General Criteria, as of December 10, 2015</p> <p>Subject-Specific Criteria of Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture as of March 27, 2015</p>				

¹ ASIIN Seal for degree programmes

² TC: Technical Committee for the following subject areas: TC 08 - Agriculture, Nutritional Sciences and Landscape Architecture

B Characteristics of the Degree Programme

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
Forestry	Sarjana Kehutanan / Bachelor of Forestry	Forest Management; Silviculture; Forest Conservation; Forest Product Technology	6	Full time	/	8 Semesters	146 sks	August of every year

For the Bachelor's degree programme Forestry the institution has presented the following profile in their curriculum book:

"The Forestry Study Program, Agriculture Faculty had been established in 2009 based on the Decree of Director General of Higher Education, Ministry of Education and Culture No. 159/DT/2009. The first class of Forestry program had been opened in 2009 with 48 students. The curriculum of the Forestry Study Program has been reviewed several times. The first curriculum of the Forestry Study Program was formulated in 2009 that is called curriculum 2009. This curriculum had been evaluated in 2014 curriculum and then reviewed again in 2016 which was determined to be the 2017 curriculum. The update and review mostly to update the curriculum based on the need of the users and also considering the forestry science developments as well as the update of the regulations and trend in the forestry sectors. The issues such as Social Forestry, Forest Management Unit as well as Agrarian Reforms are some examples of national issues that influenced the content of the curriculum while some other local issues such as traditional tribes and potential of Non-Timber Forest Products as well as conflicts are also play important roles as well. While global issues such as climate changes and global warming, loss of biodiversity also be a part of strong considerations during developing of the curriculum."

³ EQF = The European Qualifications Framework for lifelong learning

C Peer Report for the ASIIN Seal⁴

1. The Degree Programme: Concept, content & implementation

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

Evidence:

- Self-Assessment Report
- Study plan of the degree programme
- Module descriptions
- Objective-Module Matrix
- Webpage of the study programme
- Curriculum Handbook
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The objectives of the Forestry Study Program have been developed based on the vision, mission and objectives of Higher Education as stipulated in article 5 of Law No. 12, 2012 concerning Higher Education and Decree of Ministry of Education and Culture No. 03 2021 on National Standard of Higher Education and considering also the education objectives of Jambi University that stated on the STATUTA of University of Jambi as regulated based on Decree of Ministry of Research, Technology and Higher Education No. 41, 2018. The formulations of the objectives of Forestry Study Program are as follows:

Graduates of the Forestry Ba should have developed an ethical and disciplined attitude, learned respect differences and diversity and adapted an entrepreneurial spirit in their daily life and their profession. They should be capable of solving problems in the field of forestry in logical, analytical, systematic and comprehensive ways in order to make new

⁴ This part of the report applies also for the assessment for the European subject-specific labels. After the conclusion of the procedure, the stated requirements and/or recommendations and the deadlines are equally valid for the ASIIN seal as well as for the sought subject-specific label.

progress based on updated science and technology as well as regulations of the forestry sector and relevant fields. In addition, graduates should be able to perform practical and managerial skills and have competencies in the fields of forest resources management, forest silviculture, forest resource conservation and/or forest product technology, including considering health and safety and environment issues.

Those education objectives are delivered to produce graduates with profiles that allow them to work in different fields and positions, such as entrepreneurs, managers in forestry business, young researchers, civil servants as well as environment and social activists. Universitas Jambi (UJ) provides an overview of how the learning outcomes (detailed in the annex of this report) aim to enable these professions. These learning outcomes are further broken down into the categories attitude, knowledge, common skills and special skills. Given these detailed presentations of the education and learning objectives the auditors gain a clear understanding of the proficiencies the students learn.

The graduate profiles and Learning Outcomes have been analyzed and updated regularly according to the needs. The recent updating of the graduate profiles and Learning Outcomes has been done in July 2021. This update was conducted to synchronize the graduate profiles with the new policy that was issued by Ministry of Education, that is Independent Campus and Independent Learning. The update and development have been conducted with the involvement of stakeholders namely bureaucrats from the Ministry of Education, private sector, Non-Government Organization, Academics and students. The two-day workshop had been conducted to collect ideas and formulate the graduate profiles and Learning Outcomes.

The auditors refer to the Subject-Specific Criteria (SSC) of the Technical Committee Agriculture, Nutritional Sciences and Landscape Architecture (TC 08) as a basis for judging whether the intended learning outcomes of the Bachelor's degree programme Forestry, as defined by UJ, correspond with the competencies as outlined by the SSC. They come to the conclusion that the objectives and intended learning outcomes of said programme under review are reasonable and well-founded. While there exists a national standard for designing the curriculum and thus the education and learning objectives, especially the elective modules allow UJ to adapt their curriculum.

Criterion 1.2 Name of the degree programme

Evidence:

- Self-Assessment Report
- Webpage of the study programme
- Curriculum Handbook

- Discussions during the audit

Preliminary assessment and analysis of the peers:

The auditors confirm that the English translation and the original Indonesian name of the Bachelor's degree programme Forestry correspond with the intended aims and learning outcomes as well as the main course language.

Criterion 1.3 Curriculum

Evidence:

- Self-Assessment Report
- Study plan of the degree programme
- Module descriptions
- Objective-Module Matrix
- Webpage of the study programme
- Curriculum Handbook
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The Bachelor's degree programme Forestry is designed for a duration of four years and at least 148 SKS (Indonesian credits), which is equivalent to around 215.92 ECTS.

All undergraduate programmes at UJ are designed to be completed in eight semesters or four academic years with a maximum of 14 semesters or seven academic years. Each semester is equivalent to 16 weeks of learning activities including one week for midterm exams and one week for final exams. The odd semester starts in August and ends January of the following year, while the even semester lasts from February to July. In addition, there is an optional summer semester, which is designed for students, who need to make up on missed or failed courses.

The curriculum consists of university requirements and compulsory and elective courses determined by UJ and the respective departments. University requirements are courses that need to be attended by all undergraduate students at UB. There are seven university requirements: English, Bahasa Indonesia, Religious Education, Civic Education, Entrepreneurship, Pancasila, and Community Service. These courses are almost all offered in the first two semesters of studies, in addition to courses conveying basic knowledge of natural sciences and mathematics.

Courses on the different subject-specific educational sciences are offered from third to eighth semester. Elective courses can be taken from the third year of study. The compulsory courses make up 123 SKS with elective courses amounting to at least 24 SKS. The electives are grouped into four different majors of which students have to choose one: forest management, silviculture, forest conservation, forest product technology. Details of the curricular contents and the modules in each of the majors can be found in the annex of this report. During the eight semesters, students must also complete the undergraduate thesis (6 SKS) and the field practice/internship (3 SKS).

Since UJ has the goal to become internationally more visible and wants to further internationalise its degree programmes, the peers discuss with the programme coordinators and students if any classes in the three degree programmes are taught in English. The programme coordinators explain that usually all courses are delivered in Bahasa Indonesia (Indonesian language) but most of the teaching materials (teaching slides) are provided in English. Sometimes parts of a lecture are held in English, for example if there is an international guest lecturer. Sometimes, even the whole course is offered in English to give international student the possibility to attend the classes. Information about the curriculum is available for students in the digital academic information system and on the programme's homepage. The students confirm that some presentations are done in English, and English textbooks are used. However, students should be encouraged to actively speak English. This could be achieved e.g. by discussing international papers or giving oral presentations in English. In addition, the auditors strongly recommend teaching classes entirely in English to familiarize the students with technical terminology in English.

The students express their sincere wish to further intensify the international scope of the curriculum. While they are generally satisfied with the taught contents, it mostly focuses on national issues, respectively tropical forestry in Indonesia. In order to enhance their career opportunities, e.g. working for international organisations and companies or applying for a graduate programme in another country, the students would like to have more courses and modules that also focus on international aspects. The peers agree with the students' assessment.

In addition, the industrial representatives wish that students were taught more soft skills, especially intercultural competencies and communication skills. Many forestry related organizations and companies work closely with the indigenous peoples of Sumatra and have noticed that students oftentimes do not know how to interact or communicate with these different cultures. In addition, they also see a lack of presentation skills in the graduates of UJ and wish that these soft skills are also furthered. The auditors agree with this assessment.

In summary, the auditors gain the impression that graduates of the Forestry degree programme are well prepared for entering the labour market and can find adequate jobs in Indonesia. During the discussion with the peers, UJ's partner from the industry/public sector confirm that the graduates have a broad scientific education, are very adaptable, and have manifold competences, which allows them to find adequate jobs.

Criterion 1.4 Admission requirements

Evidence:

- Self-Assessment Report
- Academic Guidelines
- Decree of Minister of Research, Technology and Higher Education No. 2, 2015
- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the Self-Assessment Reports, admission procedures and policies for new students follow the National Regulation No.2, 2015. The requirements, schedule, registration venue, and selection test are announced on UJ's webpage and thus accessible for all stakeholders.

There are three different ways by which students can be admitted to a Bachelor's programme at UJ:

1. National Entrance Selection of State Universities (Seleksi Nasional Masuk Perguruan Tinggi Negeri, SNMPTN), a national admission system, which is based on the academic performance during the high school (30 % of the students at UJ are admitted through this selection system).
2. Joint Entrance Selection of State Universities (Seleksi Bersama Masuk Perguruan Tinggi Negeri, SBMPTN). This national selection test 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). It accounts for 40 % of the admitted students at UB.
3. Independent Selection (Seleksi Mandiri) students are selected based on a written test (similar to SBMPTN) specifically held by UJ for prospective students that haven't been accepted through SNMPTN or SBMPTN (30 % of the students at UJ are admitted through this test).

The auditors ask about the intake rate for the programme and learn that each semester, between 140 and 250 new students are accepted into the programme. Most of the students are from Jambi (68%) or other regions of Sumatra (20%) while the remaining students come from other Indonesian provinces.

When looking at the intake rate, the auditors notice that between 10 and 25% of all applicants are actually selected for the programme. In order to guarantee a fair and objective selection procedure, UJ publishes all information related to the admission process on their website. In addition, the results of the admission tests are published online and printed by national and local newspapers.

In summary, the auditors find the terms of admission to be binding and transparent. They confirm that the admission requirements support the students in achieving the intended learning outcomes.

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

Regarding Criterion 1.3 – Soft Skills and Intercultural Competencies

The University of Jambi and the forestry study program agree to improve the education system by providing more opportunity for the students to have intercultural relationship experience and improve communication as well as other soft skill. The academic program and teaching methods will be revised and changed in parallel to the change of the curriculum in 2022. While for the curriculum 2017 will mostly focused on the changes of the teaching methods. Since the pandemic is close to end, the forestry study program will implement the hybrid teaching methods starting from even semester 2021/2022.

The extra curricula activities will also conduct for the next coming years. The university presents the existing programs and the improvement of extra curricula activities to increase the opportunity of the students to practice and exercise their communication and presentation skill in an annex.

The auditors deem this strategy very promising and are looking forward to its full implementation.

In summary, the auditors regard this criterion to be **fulfilled**.

2. The degree programme: structures, methods and implementation

Criterion 2.1 Structure and modules

Evidence:

- Self-Assessment Report
- Study plan of the degree programme
- Module descriptions
- Objective-Module Matrix
- Webpage of the study programme
- Curriculum Handbook
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The Forestry study programme is managed under the Forestry Department of the Agriculture Faculty of Universitas Jambi. The structure of the Forestry program is regulated based on the Rector Decree No. 3570, 2020 as attached at appendix 11. The curriculum was designed to fulfill the minimum standard of a bachelor degree at the level of 8 according to Decree of Ministry of National Education No. 49/2014 that renewed by Decree of Ministry of Education and Culture No. 3/2020. The minimum number of credits that should be passed by students to achieve the bachelor degree according to those regulation is 144 credits. While the minimum number of the credits that should be taken and passed by the students at Forestry Program is 148 credits or equivalent to 215.92 European Credit Transfer and Accumulation Systems (ECTS).

The Curriculum of Forestry program consists of 47 compulsory courses with the total of 123 credits. Those compulsory courses consist of classroom courses with 56% of those courses containing practical works and final assignment courses for the students. These compulsory courses can be divided into National compulsory courses that consist of 10 credits and University compulsory courses that consist of 8 credits. The others are compulsory courses by the Forestry Study Program. The final assignment courses are field Practice/internship, seminar and thesis. The total credits of final thesis are 12 SKS.

As already discussed under criterion 1.3, students choose one of four majors - forest management, silviculture, forest conservation, forest product technology. In each major students must select a minimum of 25 SKS yet they may opt to choose more if they want to. Each major in itself offers the students a choice of different modules so that students not

only choose their major but also the areas they want to specialise in the given major. The auditors learn that one person acts as a coordinator for each major that organizes and structures the electives as well as aids students in choosing different courses. Students must also undertake the research and the final thesis in their chosen major.

An important part of the study programme is the field practice which has been conducted by cooperating with the forestry institutions in Indonesia that are covering private and state companies as well as governmental and non-governmental organizations. Many of these organizations and companies provide the transportation costs as well as daily allowance for the students. There are different field practices for the students that range in length. For example, the course "Introduction to Forest Ecosystems" entails a two-week field trip to different Indonesian forests such as beach or rainforests while each semester students are brought on a field trip to a forest located outside of Jambi city. During the final year, students have to partake in a mandatory internship in cooperation with any of the forestry organizations mentioned above. This internship lasts for 2,5 months during which the student is supervised by one lecturer from UJ and a field supervisor appointed by the institutions where the field practice takes place. The auditors laude the effort UJ undertakes to have a very high share of practical work in various areas of forestry and the opportunities students have to gain insight into the workings of forestry-related companies and institutions and view this as one of the programmes strong points.

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

Mobility

According to the opinion of the peer group, a critical aspect of the degree programmes under review is the limited academic mobility of the students. While the students are very interested in studying abroad, opportunities are very rare. The only cooperation UJ seems to have with a university outside of Indonesia is a CRC 990 research project with University Goettingen. This collaboration, which is ongoing since 2012 is, however, focused more on research than on student exchange. 25 joint papers have been published between the departments and 16 students were invited as guest researchers.

No other mobility than the cooperation with Goettingen University, is mentioned in the self-assessment report. The auditors inquire more information about the university's internationalization strategy since it is UJ's mission to become an internationally recognized unit. They learn that a new policy of the Indonesian government called "Freedom to learn"

(Merdeka Belajar) actively supports any activities outside of the university. This new regulation requires the university to promote students who want to conduct an internship or a study abroad. UJ recognizes the courses taken by the students outside the university based on the equality of the learning outcome. While the auditors consider this programme a great opportunity for many students in theory, they notice that UJ has not yet taken steps to provide for the implementation of this programme. For example, UJ holds virtually no cooperation with universities from other countries besides the aforementioned research project at Goettingen and as far as the auditors could discern also does not provide the necessary infrastructure for students to actually inform themselves about going abroad, providing scholarships or helping them finding adequate study programmes. In addition, given that nearly all courses are taught entirely in Bahasa, the Forestry programme is also not attractive for international students. Here, establishing classes taught entirely in English would be beneficial both for attracting international students and for providing the Indonesian students with English speaking capacities to join a study programme abroad.

In summary, the auditors are of the opinion that international mobility currently does not exist in the Forestry programme. As such, UJ must provide a concept on the university's internationalization strategy that includes the international mobility of the students and cooperation with universities from other countries both in teaching and research.

Criterion 2.2 Work load and credits

Evidence:

- Self-Assessment Report
- Study plan of the degree programme
- Module descriptions
- Curriculum Handbook
- Study Load Balance Report
- ECTS Conversion of the Forestry Department
- Statistical data on study progress and failure rate
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The work load of the students and lecturers is calculated based on the credits. The academic regulation issued by Rector of University of Jambi No. 2/2017 and updated by Rector Decree No. 9/2020 article 36 regulates the work load. One credit is equivalent to 50 minutes of activities in the class room; 60 minutes conducting structure activity outside the class that organized by lecturers and 60 minutes of self-determined activities by students.

It means that one credit is equivalent to 170 minutes of work load for students as well as the lecturers every week. While for the practical works, 1 credit is equivalent to 170 minutes of practical works in the laboratory or field.

Based on the standard mentioned before, the average work load for students is around 11.43 hours per week for activities in the class room; 12.99 hours for practical works; 13.83 hours for structured activities; 13.93 hours for self-learning and individual project; 5.35 for field works; 1.70 hour for examination. The total average hours are 58.95 hours per week or 825.34 hours per semester. The average total semester work load of students is equal to 29.47 ECTS.

Statistical data provided in the self-assessment report for the years 2012-2017 showcases that the average lengths of study decreased from 70 months (11 semesters) in 2012 consistently year by year to 44 months (7 semesters) in 2017. According to the university, evaluation results have shown that the main problem was the thesis elaboration, which took the students on average 17.3 months (3 semesters) to finish. In 2017, this time was reduced to an average of 8.7 months. According to the university, several programs have been implemented to support students in reducing the time spend on their theses. For example, the processes and procedures of the seminar and thesis examination have been shortened by updating the Standard of Procedures. In addition, the thesis consultancy has been adapted and an online-application named ELISTA has been introduced. In ELISTA, the time table and procedure of each activity of the thesis have been defined so that both students and supervisors now have a clear timeline to obey.

Although this sounds very promising in principle, the auditors are asking for more up-to-date data to find out whether students have also been able to complete the thesis - and accordingly their studies - in standard study time in recent years. Especially since 2017, most students were able to finish their studies one semester earlier. As UJ was unable to provide any data stemming from after 2017, the auditors ask that the average duration of study must be traced continuously. In the case of prolonged standard study time, the reasons must be analysed and countermeasures developed.

Given the drop-out rate, statistical data from 2017 – 2020 show that the failure rate averages around 8.5% but has been decreasing over the years. The students and the programme coordinators confirm that most of these students leave the programme in the early semesters and do not quit studying entirely but rather change to a different programme.

In summary, the auditors learn from the students that they deem the workload generally satisfactory and that many changes have been done over the past years to limit the workload especially with regard to the final thesis. As there exist no current data given the average study time, the auditors ask UJ to provide this as soon as possible.

Criterion 2.3 Teaching methodology

Evidence:

- Self-Assessment Report
- Information on procedures of seminars, field practices and theses writing
- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the self-assessment report, the teaching methods mostly applied in the programme under review are case-based learning (CBL) while during pandemic times e-learning methods were increasingly utilized.

At the university level, UJ has implemented the Institute for Learning Development and Quality Assurance, which regulates and releases documents of teaching quality and monitors the teaching quality. At the faculty level, the Academic Quality Unit is also responsible for assuring the academic quality standard of teaching.

Various teaching and learning methods (including lectures, computer training and classroom and lab exercises, individual and group assignments, seminars and projects, etc.) have been implemented. Structured activities include tutorials, homework, assignments (reading or problem exercises) and practical activities. Group project assignments are given in some courses to develop students' skills in teamwork, communication, and leadership. The assignments and exercises should help students to develop their abilities with respect to critical thinking, written/oral communication, data acquisition, problem solving, and presentations.

The most common method of learning is class session, with several courses having integrated laboratory practices. Lecturers generally prepare presentations to aid the teaching process. With individual or group assignments, such as discussions, presentations, or written tasks, students are expected to improve their academic as well as their soft skills. Laboratory work covers laboratory preparation, pre or post-tests, laboratory exercises, reports, discussions, and presentations. In addition, practical activities should enable students to be acquainted with academic research methods.

In summary, the peer group considers the teaching methods and instruments to be suitable to support the students in achieving the intended learning outcomes. In addition, they confirm that the study concept of the programme comprises a variety of teaching and learning forms as well as practical parts that are adapted to the respective subject culture and study format. It actively involves students in the design of teaching and learning processes (student-centred teaching and learning).

Criterion 2.4 Support and assistance

Evidence:

- Self-Assessment Report
- Academic Guidelines
- Curriculum Handbook
- Discussions during the audit

Preliminary assessment and analysis of the peers:

Support and assistance at the Forestry programme is provided at the programme as well as the university level.

During his or her studies, each student has at least three but mostly four counsellors. The first is an academic counsellor, who accompanies the student through his or her entire studies and assists him or her in both academic and non-academic matters. The second is the so-called thesis supervisor whose main task is to assist and support the student in planning, conducting research and writing their thesis. The third counsellor is responsible for supervising the field practices and mandatory internship.

At the university level, the student development body has been designed to assist and support the students and alumni to empower themselves by providing training for job applications. In addition, the university also provides counselling for students with personal problems or other ailments.

Finally, there are several student organizations at UJ; they include student's activity clubs, which are divided into arts, sports, religious and other non-curricular activities.

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

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

Regarding Criterion 2.1 – International Mobility

The University of Jambi (UJ) and the forestry study program agree to develop a plan and roadmap on the internationalization of the Forestry study program. The programs namely (1) Improving Student and lecturer English Proficiency that consist of (a) Students English Club; (b) English Training Camp and (c) Regular English Course; (2) Guest Lectures; (3) International Inviting Professors; (4) Class in English; (5) International Internship Programs for students and lecturers; (6) Student and lecturer exchanges; (7) International Class; (8) Credit exchanges dan (9) Collaboration Research and Publications. The University further presents the document of the roadmap as well as the support letter of the Rector of University of Jambi.

The auditors thank the university for their detailed response and see that the university has presented an strategy to further their internationalization.

Regarding Criterion 2.2 – Work Load

The University of Jambi and the forestry study program agree to develop the mechanisms to shorten the study time. The existing programs as stated on the Self Assessment Report (SAR) will be continued and improved while several proposed new programs have been also developed. Data on the average study time and the proposed programs to shorten the study time are explained in detail in an annex.

The data shows that most students are able to finish their studies within the allotted time of four years or with very little extra time needed. The auditors thus not only see that the average study time of all students is already traced but also that there seem to be no hindrances for the students to finish their studies on time. They nonetheless are glad to hear that the university plans further measure to ensure that in the future even more students will finish on time.

In summary, the auditors regard this criterion to be **fulfilled**.

3. Exams: System, concept and organisation

Criterion 3 Exams: System, concept and organisation
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Evidence:

- Self-Assessment Report
- Module descriptions
- Academic Guidelines
- Academic Calendar
- Sample exams and theses
- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the Self-Assessment Report, the students' academic performance is evaluated based on their attendance and participation in class, their laboratory works and reports, assignments, homework, presentations, mid-term exam, and the final exam at the end of each semester.

If a student fails, she/he must repeat the entire module in the following semesters; it is not possible to retake just parts of the course or to just retake the final exam. The further details are described in the Academic Guidelines.

The peers discuss with the students how many and what kind of exams they have to take each semester. They learn that for each course there is one mid-term exam and one final exam in every semester. Usually, there are additional practical assignments or oral tests. The final grade is the sum of the sub-exams. Because of the small size of the modules, the peers point out that the students have only to learn rather small portions for each exam. In addition, the content of the mid-term exams is not repeated in the final exams. The result of this system is a rather fragmented knowledge about the different subjects. For this reason, larger modules would be favourable. The students appreciate that there are several short exams instead of one big exam, yet given the small size of each course and the subsequent amount of courses students have to take per semesters (8-9), the number of exams is quite high. As such, the auditors recommend reducing the number of exams students have to take per semester.

As stipulated in the Academic Guidelines, every student is required to do a final thesis. Prior to the actual research work, students need to prepare a research proposal, which is submitted to the Thesis Advisory Committee. Students are asked to find a suitable topic by discussing with the lecturers, developing own ideas, or joining a lecturer's research project. The student can propose the name of the thesis supervisor and submit the thesis proposal to the Thesis Committee. The Thesis Committee will review the proposal and decide about the supervisor.

The peers also inspect a sample of examination papers and final theses and are overall satisfied with the general quality of the samples.

The auditors were, however, unable to find information about disability compensation and special support for disabled students, especially for working in the laboratories and asks UJ to provide such rules and regulations, if available.

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

The University of Jambi and the forestry study program agree to develop larger modules and to reduce number of exams. Updating the curriculum 2017 to the curriculum 2022 has been conducted. The revision mostly done by combining small credit of courses into combined modules as suggested by the auditors. The result is that the number of the courses in the curriculum 2022 is much less compared to curriculum 2017 where the number of compulsory courses decreased to 22,86% while for average of the elective course decreased to 46,04%. The number elective courses of silviculture major decreased by 43,75%; The number elective courses of forest resource conservation major decreased 46,67%; The number elective courses of forest resource management major decreased by 50% and the number of forest products technology major decrease by 43,75%. In the 2022 curriculum the number of credit contracts was reduced to 145 credits. The mechanism of the exam also will be changed based on the module and all the course content will be examined to the students at the final examination. UJ has presented the new curriculum.

For disability compensation and special support for disabled students, the University of Jambi (UJ) and the forestry study program agree to develop the rules and regulations for the disable that include with regulation of safety rules in Forestry Study Program. The Forestry study program will have a new building developed by the Asian Development Bank in 2023. The building will fulfill the standard for disability. Although there is no restriction for student candidate for entering the Forestry Study Program (see Criterion 1.4. Admission Requirements of the SAR Document), however until 2021 academic year there are no students or student candidates who have significant disability. Documents provided by UJ shows, that they provide certain infrastructure for disabled students, such as parking spaces, lifts or signs. What is currently still missing, is the disability compensation with regard to the exams. There must be a regulation in place that, for example, allows certain students a longer time for writing their exams, or another one which helps them to perform to the best of their abilities.

In summary, the auditors regard this criterion to be **mostly fulfilled**.

4. Resources

Criterion 4.1 Staff

Evidence:

- Self-Assessment Report
- Staff Handbook
- Study Plans
- Module descriptions
- Sample of lecturer workload report
- Rector regulation on selection and dismissal of lecturers and administrative staff
- Discussions during the audit

Preliminary assessment and analysis of the peers:

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

The number of lecturers involved in the Forestry programme is 58. Their qualifications are detailed below:

No	Qualifications	Number	Percentage
1	Professor	6	10.34
2	Doctor with Engineering Profession	4	5.17
3	Doctor	13	24.14
4	Ongoing Doctor with Engineering Profession	1	1.72
5	Ongoing Doctor	1	1.72
6	Master with Engineering Profession	6	8.62
7	Master Degree	27	48.28
8	Total	58	100.00

The total number of active students in 2021 is 835, therefore the ratio of lecturers to students is 1:14.4. This ratio is in line with the national standard based on the ratio regulated by Directorate General of Higher Education Republic of Indonesia.

In addition, the university provides further statistical data that showcases the field of expertise of the lecturers as well as their academic background and highest degree. While

analysing the staff handbook provided by UJ, the auditors notice that most of the lecturers holding a doctorate have achieved them not in forestry but in an agricultural field such as agronomy, agriculture or horticulture. Indeed, only 5 lecturers currently hold a PhD in forestry or a field directly related to forestry. Of those 5 lecturers, no one holds the qualification of professor. Thus, while there are generally enough lecturers for the programme, there is not a single professor of Forestry.

During the discussions with the programme coordinators and the rectorate of UJ, the auditors learn that the university plans to expand the Forestry department in order to allow more students to join. As already discussed, only five lectures holding a PhD are from the field of forestry. The auditors are of the opinion that the number of said staff members must increase as well. As such, UJ must provide a human resource concept that defines how the teaching staff is to grow in relation to the targeted number of students and in relation to curricular revision. If new topics are to be included in the curriculum, UJ must ensure that it holds staff members that can cover these additional subjects.

UJ provides a plan that showcases that for the foreseeable future, it plans on pushing certain lecturers, holding a PhD for quite some time, to become professors. The study programme will request the university and the faculty to facilitate publications, teaching and other relevant supports to achieve this plan. While this is generally laudable and highly appreciated by the auditors, this would mean that the promising candidates must be able to put more time into their research and less into teaching as research is key to becoming a professor at UJ. To compensate for this, UJ has been cooperating with professors from other university to join as guest lecturers. In 2022, three guest lecturers, two of them from Europe, will join UJ.

Nevertheless, the auditors support UJ in their long-term strategy of enabling their staff members to become professors. In their view, supporting the academic career of their current lecturers is a vital step of a future human resource concept that aims at providing more professors with a degree in forestry.

Criterion 4.2 Staff development
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Evidence:

- Self-Assessment Report
- Staff Handbook
- Discussions during the audit

Preliminary assessment and analysis of the peers:

Staff development in the Forestry Programme refers to the Rector Regulation No.9/2017 concerning Career Paths and Ranks of Lecturers and administration staffs at Jambi University. Several programs have been conducted by Forestry department as well as Forestry Programme to improve the quality of human resources: First, facilitation and support to attend and become a speaker in various scientific activities such as seminars, workshops, training, and other both in national and international level is provided. In these activities, Forestry Department provides budget for transportation as well as accommodation for the staff. Second, opportunities are provided for staff members to pursue further studies. Lecturers and administration staff at Forestry Programme have the same opportunity in developing and improving their capability. Moreover, several trainings have been offered by UJ that focused on a wide range of topics such as developing documents for accreditation, training on research methods and statistical analysis, training on scientific writing, financial management and laboratorial instruments. For these programmes, the forestry programme allocates an average amount of 340.286.667 IDR (21.000€) per year.

As has been mentioned under criterion 4.1, the auditors strongly recommend that UJ further supports the academic career of their current lecturers by enabling them to become professors to enrol in a PhD-programme. In addition, the auditors notice that there exist no didactical programmes or trainings for the lecturers. They thus ask UJ to quickly implement a structure that allows the lecturers to continuously further and diversifies their expertise of teaching, including online teaching.

Criterion 4.3 Funds and equipment
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Evidence:

- Self-Assessment Report
- List of infrastructure used by the forestry programme
- Presentation during the audit
- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the self-assessment report, the funds for the operation and development of the forestry programme come from three main sources: The central government, which provides both a state and a higher education operational budget, the tuition fees of the students as well as funds from collaborations with stakeholders. UJ presents the amount and allocations of the funds for the last three years and the auditors can confirm that the

funds seem to be sufficient for the operational activities as well as the future development of the programme.

In their self-assessment report, through photographs and videos and well as during the audit, the auditors gained an impression of the infrastructure and equipment of the faculty. The infrastructure includes class rooms, laboratories and preparation rooms, administration rooms, rooms for seminars and examinations, an herbarium and other supporting infrastructure and facilities for doing practical work and research. Details about all these spaces are given to the auditors in an extensive presentation and an annex to the self-assessment report. For supporting the practical work and research, the programme also provides equipment for working in the laboratories as well as working in the field. Besides the infrastructure on campus, UJ also has a nursery and education forests close to the campus to support the practical work and research of its students.

The auditors assess the information regarding the infrastructure and equipment they have received and are generally very satisfied with both quality and quantity of the available instruments. During the discussion with the students, however, they learn that while modern and up-to-date equipment is generally available, it is not always enough for all the students to utilize, especially during research-heavy times like the final semesters where students conduct their thesis. The auditors assume that a lack of modern equipment could be one of the reasons why students generally take longer to finish their final thesis. While they could detect no severe lack, they nonetheless recommend UJ to discuss this with the respective students and increase the amount of said modern equipment.

The auditors could also not find any information on the health and safety and environment standards of the laboratories and were unable to detect through the videos and photographs, which security measures are in place. As such, they ask UJ for more information on this topic.

While the auditors could confirm that UJ holds a library and also access to international books and journals, they were surprised to find out that the latter is rather restrictive and depends on the cooperation UJ holds with the Goettingen University. Especially given the focus UJ places on research, the auditors are of the opinion that students must have an extended access to international literature resources, especially to journals

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

Regarding Criterion 4.1 – Staff

The University of Jambi and the forestry study program agree to develop strategy to develop the academic career of lectures both of increase the number of Professor in forestry

and holding a PhD program. The strategy of academic career for lectures and staffs are attached as an annex to their statement. However, actually two Professors with the expertise on the forestry science has been taught in the forestry study program namely Prof. Dr. Ir. Wahyu Dwianto, M.Agr. in the field of wood modification and Prof. Dr. Sulaeman Yusuf, M.Agr. in the field of wood preservation. Forestry study program also has three associate professors with the expertise on the forestry science namely Dr. Hamzah (Silviculture); Drs. Asrizal Paiman (Conservation) and Ir. Fazriyas (Forest Management).

Regarding Criterion 4.3 – Funds and Equipment

The University of Jambi and the forestry study program agree to improve and obey the recommendation of the auditors. The University of Jambi confirmed to support the forestry Study program to improve the laboratory instruments as presented on Appendix 1. While the list of the laboratory instruments that will be bought for 2022 to 2026 is attached as an annex. Another mechanism that will be strengthened is the sharing of instruments among laboratories under the University as described in the SAR Document.

The document on the standard of safety and environment standards is also provided and improved as attached as an annex. The auditors carefully review this and see that basic safety measures are implemented, such as signs informing the students of safety measures, fire extinguishers, the necessity of wear laboratory coats or how to call the fire department. Yet, given that the students also work in chemistry laboratories, the auditors need to see fumation hoods, locked cabinets for the chemicals, emergency showers and the like. They ask UJ to either present proof of these safety measures or to quickly implement them.

The literature and journals that can be accessed by the students and lecturers are journals that are free accesses that can be accessed from <https://www.scimagojr.com/index.php> and other national journals. The university also subscribes several journals published by Oxford University Press; Cambridge University Press; Springer and Taylor and Francis. The Forestry Study Program will subscribe six journals starting from 2022 that are published by Elsevier namely: (1) International Biodeterioration & Biodegradation; (2) Journal for Nature Conservation; (3) Urban Forestry & Urban Greening; (4) Biological Conservation; (5) Flora and (6) Forest Ecology and Management. The auditors deem this very promising and ask UJ to follow their plans.

In summary, the auditors regard this criterion as **partially fulfilled**.

5. Transparency and documentation

Criterion 5.1 Module descriptions
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Evidence:

- Module descriptions

Preliminary assessment and analysis of the peers:

The students, as all other stakeholders, have access to the module descriptions via UJ's homepage. After studying the module descriptions, the peers confirm that they include all necessary information about the persons responsible for each module, the teaching methods and work load, the awarded credit points, the intended learning outcomes, the content, the applicability, the admission and examination requirements, and the forms of assessment and details explaining how the final grade is calculated.

Criterion 5.2 Diploma and Diploma Supplement

Evidence:

- Exemplary diploma
- Exemplary diploma supplement
- Exemplary transcript of records

Preliminary assessment and analysis of the peers:

The auditors confirm that the students of the forestry programme are awarded a Diploma and a Diploma Supplement after graduation. The Diploma consists of a Diploma Certificate and a Transcript of Records. The Diploma Supplement contains all necessary information about the degree programme including acquired soft skills and awards (extracurricular and co-curricular activities). The Transcript of Records lists all the courses that the graduate has completed, the achieved credits, grades, cumulative GPA, and mentions seminar and thesis titles.

Criterion 5.3 Relevant rules

Evidence:

- Self-Assessment Report
- All relevant regulations as published on the university's webpage

Preliminary assessment and analysis of the peers:

The auditors confirm that the rights and duties of both UJ and the students are clearly defined and binding. All rules and regulations are published on the university's website and hence available to all relevant stakeholders.

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

University of Jambi does not provide a comment to this criterion.

In summary, the auditors regard this criterion as **fulfilled**.

6. Quality management: quality assessment and development

Criterion 6 Quality management: quality assessment and development

Evidence:

- Self-Assessment Report
- Academic Guidelines
- Quality standards of the university
- Results of the Tracer Study
- Samples of teaching evaluations and surveys
- Discussions during the audit

Preliminary assessment and analysis of the peers:

The auditors discuss the quality management at UJ with the programme coordinators and the students. They learn that there are three quality assurance bodies that assess the quality of the programme. The first is the Learning Development and Academic Quality Assurance Institution, which is obliged to develop the learning processes at UJ and to assess the quality assurance for all faculties at the university. The second one is the Academic Quality Assurance Unit at the agricultural faculty level. This unit is tasked with assessing the quality of teaching, research and community service, the quality and quantity of the infrastructure as well as the faculty governance, academic processes and achievements of the study programmes. The third institution is the Higher Education National Accreditation Body (BAN-PT), an external quality assurance organization developed by the Indonesian government.

The forestry study programme, in collaboration with the Academic Quality Assurance Unit, has developed the systematic assessment tools to evaluate the achievements of the programme learning outcomes and evaluation on the graduate performance on the labour

market. The results of these evaluations are given in the self-assessment report and the accompanying annexes and show a general satisfaction with the quality of the programme. Internal evaluation of the quality of the degree programmes is mainly provided through student surveys. The students give their feedback on the courses by filling out the questionnaire online. Giving feedback on the classes is compulsory for the students; otherwise, they cannot access their account on UJ's digital platform. The questionnaires are used to monitor and evaluate the learning processes and are distributed every semester to the lecturers before the final exam is done. A summary of the students' feedback is sent to the respective lecturers. Based on the results, the programme coordinator and the teachers reassess every course and possibly some changes are made. If there are negative results, the Department Head invites the concerned teacher to discuss about his or her teaching methods and thus, they are expected to enhance their performance in the future.

The auditors gain the impression that the Departments take the students' feedback seriously and changes are made if necessary. What they are missing, however, is the systematic inclusion of the industrial and governmental partners to review the curriculum of the study programme. While UJ holds cooperation with many partners, there is no system in place that ensures future employers to review and possibly revise the programme. This, however, is important as students as the curriculum should prepare the students for the current trends and tribulations of the work place.

In summary, the peer group confirms that the quality management system at UJ is, besides the mentioned deficits, suitable to identify weaknesses and to improve the degree programmes.

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

The University of Jambi (UJ) and the forestry study program agree to develop the systematic inclusion of the industrial and governmental partners to review the curriculum of forestry study program.

In summary, the auditors regard this criterion as **fulfilled**.

D Additional Documents

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

1. Concrete data on the standard period of study (especially after 2017)
2. Disability compensation and special support, especially for work in laboratories
3. Information on the laboratorial safety restriction

E Comment of the Higher Education Institution (20.01.2022)

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

1. Concrete data on the standard period of study (especially after 2017)
2. Disability compensation and special support, especially for work in laboratories
3. Information on the laboratorial safety restriction

F Summary: Peer recommendations (19.02.2022)

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Forestry	With requirements for one year	30.09.2027	–	/

Requirements

- A 1. (ASIIN 4.2) Offer opportunities for didactical training of teachers, including online teaching.
- A 2. (ASIIN 4.3) The laboratories must adhere to international safety standards.
- A 3. (ASIIN 4.1) Provide a human resource concept that defines how the teaching staff is to grow in relation to the targeted numbers of students and in relation to curricular revisions. The concept must especially focus on the support of academic careers of current staff members at UNJA.
- A 4. (ASIIN 3) Disability measures and compensations for disabled students must be implemented.

Recommendations

- E 1. (ASIIN 1.3) It is recommended that the content of the curriculum should have a stronger international orientation.
- E 2. (ASIIN 1.3) It is recommended to teach the students more soft skills, such as (inter-cultural) communication and presentation skills.
- E 3. (ASIIN 1.3) It is recommended to teach more classes in English.
- E 4. (ASIIN 3) It is recommended to reduce the number of exams students have to take.
- E 5. (ASIIN 4.3) It is recommended to purchase more modern equipment, especially with regard to the laboratories.

- E 6. (ASIIN 4.3) It is recommended that students have access to international literature resources, especially journals.
- E 7. (ASIIN 6) It is recommended to implement a formalized system that allows a regular feedback from the industrial and governmental partners on the curriculum of the study programme, e.g. in form of a multi stakeholder advisory board (i.e. representatives from industry, Land Users NGOs, governmental institutions)

G Comment of the Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture (10.03.2022)

Assessment and analysis for the award of the ASIIN seal:

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

The Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Forestry	With requirements for one year	30.09.2027	–	/

H Decision of the Accreditation Commission (18.03.2022)

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

The accreditation commission discusses the procedure and follows the assessment of the auditors and the technical committee.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Forestry	With requirements for one year	30.09.2027	–	/

Requirements

- A 1. (ASIIN 4.2) Offer opportunities for didactical training of teachers, including online teaching.
- A 2. (ASIIN 4.3) The laboratories must adhere to international safety standards.
- A 3. (ASIIN 4.1) Provide a human resource concept that defines how the teaching staff is to grow in relation to the targeted numbers of students and in relation to curricular revisions. The concept must especially focus on the support of academic careers of current staff members at UNJA.
- A 4. (ASIIN 3) Disability measures and compensations for disabled students must be implemented.

Recommendations

- E 1. (ASIIN 1.3) It is recommended that the content of the curriculum should have a stronger international orientation.
- E 2. (ASIIN 1.3) It is recommended to teach the students more soft skills, such as (inter-cultural) communication and presentation skills.
- E 3. (ASIIN 1.3) It is recommended to teach more classes in English.

- E 4. (ASIIN 3) It is recommended to reduce the number of exams students have to take.
- E 5. (ASIIN 4.3) It is recommended to purchase more modern equipment, especially with regard to the laboratories.
- E 6. (ASIIN 4.3) It is recommended that students have access to international literature resources, especially journals.
- E 7. (ASIIN 6) It is recommended to implement a formalized system that allows a regular feedback from the industrial and governmental partners on the curriculum of the study programme, e.g. in form of a multi stakeholder advisory board (i.e. representatives from industry, Land Users NGOs, governmental institutions)

I Fulfilment of Requirements (24.03.2023)

Analysis of the peers and the Technical Committee/s (16.03.2023)

- A 1. (ASIIN 4.2) Offer opportunities for didactical training of teachers, including online teaching.

Initial Treatment	
Peers	fulfilled Justification: The faculty has taken several initiatives to assure improved didactical capacities by training measures.
TC 08	fulfilled Justification: The technical committee follows the assessment of the auditors.

- A 2. (ASIIN 4.3) The laboratories must adhere to international safety standards.

Initial Treatment	
Peers	fulfilled Justification: Although not fully documented in the main report, the pictures demonstrate respective information is given to laboratory users and that changes to the laboratories have been implemented.
TC 08	fulfilled Justification: The technical committee follows the assessment of the auditors.

- A 3. (ASIIN 4.1) Provide a human resource concept that defines how the teaching staff is to grow in relation to the targeted numbers of students and in relation to curricular revisions. The concept must especially focus on the support of academic careers of current staff members at UNJA.

Initial Treatment	
Peers	fulfilled Justification: Although additional calculations about the demand and supply balance in teaching hours related to disciplines are not given, the measures to increase the staff are impressive. It has to be taken in account that the high number of ongoing PhD

	delays a solution to this threat (Report p. 35). But the additional funds for lecturing staff and the information about future additional lecturers (p. 34) and promotion to professorships (p. 39) are an indicator of upcoming improvements in the next years (till the next accreditation)
TC 08	fulfilled Justification: The technical committee follows the assessment of the auditors.

A 4. (ASIIN 3) Disability measures and compensations for disabled students must be implemented.

Initial Treatment	
Peers	Not completely fulfilled Justification: Impressive steps were undertaken to make the infrastructure accessible for disabled students. Yet there are no information on disability compensations for the students with regard to exams, field activities, adjustment of lecture methods, etc.
TC 08	Not completely fulfilled Justification: The university has improved the situation for students with disability significantly.

Decision of the Accreditation Commission (24.03.2023)

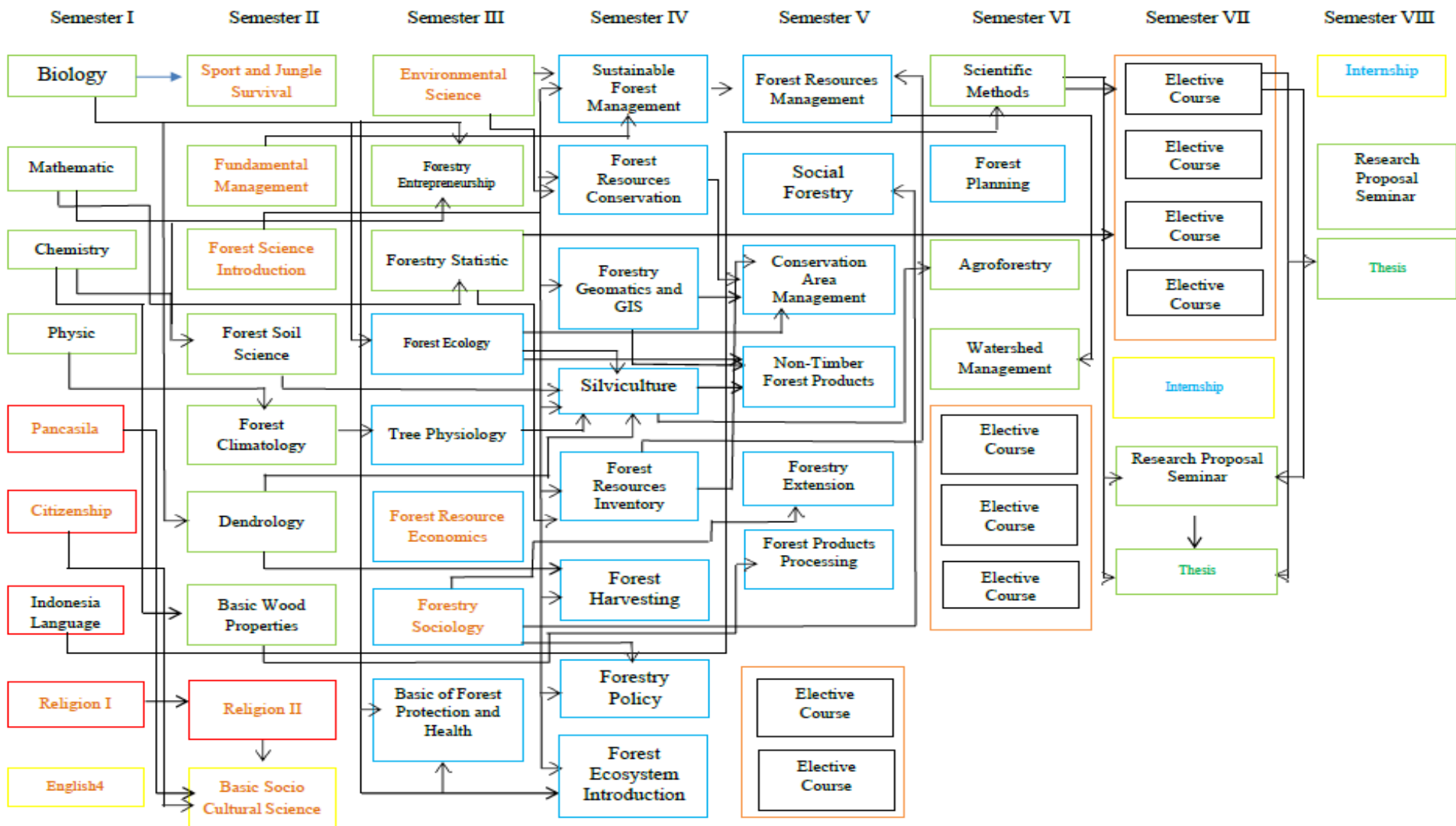
Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ba Forestry	Requirement 4 not fulfilled	6 months extension	–	/

Appendix: Programme Learning Outcomes and Curricula

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

Attitude	
PLO1	Demonstrating a religious, humanist, patriotic attitude and respect differences and diversity
PLO2	Demonstrating a long-life learner's attitude, ethics, discipline, law abiding, responsibility and has an entrepreneurial and professional spirit in daily life and profession.
Knowledge	
PLO3	Having a knowledge of the basics of forestry science including forest resource conservation, forest management, forest product technology, silviculture as well as forest and land rehabilitation.
PLO4	Having awareness and knowledge on basic science and other branches of science related to forestry and their applications in the forestry sector and aware to the development of science related to the forestry sector
PLO5	Having knowledge and understanding on safeguarding and various regulations and policies as well as institutions related to the forestry sector
Common Skills	
PLO6	Able to think logically, systematically, critically, analytically and innovatively to solve problems based on implementation of science and technology those related to the forestry sector
PLO7	Able to work independently or in team works with measurable quality and able to apply various methods and techniques including to identify and solve the problems as well as able to conduct entrepreneurship activities especially in the field of forestry.
PLO8	Able to communicate, supervise, evaluate and make decisions based on data and information of projects in field of forestry.
PLO9	Able to explore literature, conduct scientific research, compile scientific and non-scientific reports in the form of a thesis or other reports and be able to convey it in oral and written form to various parties.
Special Skills	
PLO10	Having managerial skills including health and safety for sustainable forest resources management including watershed management, as well as socio-economic management and forestry extension.
PLO11	Having skills in conservation of forest resource efforts as well as cultural conservation and local wisdom of the local communities as well as health and safety
PLO12	Having skills in forest cultivation, forest rehabilitation and other silvicultural activities including agroforestry by considering health and safety
PLO13	Having skills in timber and non-timber forest product technology as well as being able to operate safely various tools and equipment related to the forestry sector.

The following curriculum is presented



Odd Semester (1st Semester)

No.	Code	Courses	Credit	Status
1	KHN112	Biology	3 (2-1)	Compulsory
2	KHN111	Mathematic	3 (3-0)	Compulsory
3	KHN213	Chemistry	3 (2-1)	Compulsory
4	KHN114	Physics	3 (2-1)	Compulsory
5	UNS112	Pancasila	2 (2-0)	Compulsory
6	UNS113	Citizenship	2 (2-0)	Compulsory
7	UNS114	Indonesian Language	2 (2-0)	Compulsory
8	UNS211	Religion 1	2 (2-0)	Compulsory
9	UNJ113	English	2 (1-1)	Compulsory
Total Credit			22	

Even Semester (2nd Semester)

1	KHN122	Sports and Jungle Survival	2 (1-1)	Compulsory
2	KHN121	Fundamentals of Management	2 (2-0)	Compulsory
3	KHN123	Forestry Science Introduction	2 (2-0)	Compulsory
4	KHN124	Forest Soil Science	3 (2-1)	Compulsory
5	KHN125	Forest Climatology	3 (2-1)	Compulsory
6	KHN126	Dendrology	3 (2-1)	Compulsory
7	KHN127	Basic Properties of Wood	3 (2-1)	Compulsory
8	UBS421	Religion II	2 (2-0)	Compulsory
9	UNJ122	Basic Socio-Cultural Science	2 (2-0)	Compulsory
Total Credits			22	

Odd Semester (3rd Semester)

1	KHN231	Environmental Science	2 (2-0)	Compulsory
2	KHN232	Forestry Entrepreneurship	3 (2-1)	Compulsory
3	KHP231	Forestry Statistics	3 (2-1)	Compulsory
4	KHP232	Forest Ecology	3 (2-1)	Compulsory
5	KHP233	Tree Physiology	3 (2-1)	Compulsory
6	KHP234	Forest Resources Economy	2 (2-0)	Compulsory
7	KHP235	Forestry Sociology	2 (2-0)	Compulsory
8	KHP236	Basic of Forest Protection and Health	3 (2-1)	Compulsory
Total Credits			21	

Even Semester (4th Semester)

1	KHP241	Sustainable Forest Management	2 (2-0)	Compulsory
2	KHP242	Forest Resources Conservation	3 (2-1)	Compulsory
3	KHP243	Forestry Geomatics and Geographic Information Systems	3 (2-1)	Compulsory
4	KHP244	Silviculture	3 (2-1)	Compulsory
5	KHP245	Forest Resources Inventory	3 (2-1)	Compulsory
6	KHP246	Forest Harvesting	3 (2-1)	Compulsory
7	KHP247	Forestry Policy	2 (2-0)	Compulsory
8	KHP248	Forest Ecosystem Introduction	2 (0-2)	Compulsory
Total Credits			21	

Odd Semester (5th Semester)

1	KHP351	Forest Resources Management	2 (2-0)	Compulsory
2	KHP352	Social Forestry	3 (2-1)	Compulsory
3	KHP353	Conservation Area Management	3 (2-1)	Compulsory
4	KHP354	Non-Timber Forest Products	2 (2-0)	Compulsory
5	KHP355	Forestry Extension	2 (2-0)	Compulsory
6	KHP356	Forest Products Processing	3 (2-1)	Compulsory

7		Elective Course		
8		Elective Course		
		Total Credits	21-24	
Even Semester (6th Semester)				
1	KHN361	Scientific Method	1 (0-1)	Compulsory
2	KHP361	Forest Planning	3 (2-1)	Compulsory
3	KHP362	Agroforestry	3 (2-1)	Compulsory
4	KHP363	Watershed Management	3 (2-1)	Compulsory
5	.....	Elective Course		
6	.....	Elective Course		
7	.....	Elective Course		
8	.....	Elective Course		
		Total Credits	21- 24	
Odd Semester (7th Semester)				
1	.....	Elective Course		
2	.....	Elective Course		
3	.....	Elective Course		
4	.....	Elective Course		
5	UNJ115	Field Practice/Internship	4 (0-4)	Compulsory with prerequisite Requirement
6	KHN481	Research Proposal Seminar	2 (0-2)	Compulsory with prerequisite Requirement
7	KHN482	Thesis	6 (0-6)	Compulsory with prerequisite Requirement
		Total Credits	21 -24	
Even Semester (8th Semester)				
1	UNJ115	Field Practice/Internship	4 (0-4)	Compulsory with prerequisite Requirement
2	KHN481	Seminar of Research Proposal	2 (0-2)	Compulsory with prerequisite Requirement
3	KHN482	Thesis	6 (0-6)	Compulsory with prerequisite Requirement
4	.....	Elective Course		
5	.....	Elective Course		
6	.....	Elective Course		

Table 5. The list of elective courses of Forest Management Major

1	EHM351	Forest Safeguard Management	3 (2-1)	Elective Course
2	EHM352	Infrastructure and Wood Extraction	3 (2-1)	Elective Course
3	EHM353	Environmental Impact Analysis	3 (2-1)	Elective Course
4	EHM354	Forest Fire Control Management	3 (2-1)	Elective Course

5	EHM461	Forestry Project Economic Analysis	2 (2-0)	Elective Course
6	EHM462	Forest Resources Conflict Management	3 (2-1)	Elective Course
7	EHM463	Forest Management Units management	2 (2-0)	Elective Course
8	EHM464	Empowerment Communities surrounding the Forest	3 (2-1)	Elective Course
9	EHM465	Environmental Service Management	3 (2-1)	Elective Course
10	EHM471	Forest Management Research Methodology	3 (2-1)	Elective Course
11	EHM472	Forest Products Marketing	2 (2-0)	Elective Course
12	EHM473	Forest Economic Development	2 (2-0)	Elective Course
13	EHM474	Forest and Land Area Arrangement	3 (2-1)	Elective Course
14	EHM475	Spatial Modeling	3 (2-1)	Elective Course
15	EHM476	Local Wisdom of Indigenous People	3 (2-1)	Elective Course
16	EHM477	Forest Biometrics	3 (2-1)	Elective Course
		Total Credits	40	

Table 6. The list of elective courses of Silviculture Major

1	EHB351	Plantation Forest Silviculture	3 (2-1)	Elective Course
2	EHB352	Soil Fertility	3 (2-1)	Elective Course
3	EHB353	Seed Technology	3 (2-1)	Elective Course
4	EHB354	Non-Timber Forest Products Cultivation	3 (2-1)	Elective Course
5	EHB361	Natural Forest Silviculture	3 (2-1)	Elective Course
6	EHB362	Plant Genetics	3 (2-1)	Elective Course
7	EHB363	Swamp, Mangrove, and Peat Forest Silviculture	3 (2-1)	Elective Course
8	EHB36	Forest Biotechnology	3 (2-1)	Elective Course
9	EHB365	Forest Pests	3 (2-1)	Elective Course
10	EHB366	Forest Disease	3 (2-1)	Elective Course
11	EHB471	Forest Cultivation Research Methodology	3 (2-1)	Elective Course
12	EHB472	Plant Propagation Techniques	3 (2-1)	Elective Course
13	EHB473	Tree Breeding	3 (2-1)	Elective Course
14	EHB474	Forest and Land Rehabilitation	3 (2-1)	Elective Course
15	EHB475	Forest Cultivation Practices	1 (0-1)	Elective Course
16	EHB476	Forest Plant Nutrition and Fertilization	3 (2-1)	Elective Course
		Total Credits	46	

1	EHK351	Wildlife Behavior	3 (2-1)	Elective Course
2	EHK352	Biodiversity	3 (2-1)	Elective Course
3	EHK353	Nature Recreation and Ecotourism	3 (2-1)	Elective Course
4	EHK354	Essential Area Management	3 (2-1)	Elective Course
5	EHK355	Urban Forestry	3 (2-1)	Elective Course
6	EHK356	Environmental Impact Analysis	3 (2-1)	Elective Course
7	EHK361	In situ and Ex-situ Conservation Techniques	3 (2-1)	Elective Course
8	EHK362	Wildlife Management	3 (2-1)	Elective Course
9	EHK363	Population Dynamics	3 (2-1)	Elective Course
10	EHK364	Ethnobotany	3 (2-1)	Elective Course
11	EHK471	Conservation Research Methodology	3 (2-1)	Elective Course
12	EHK472	Sumatran wildlife keystone species Management	3 (2-1)	Elective Course
13	EHK473	Nature's Interpretation	3 (2-1)	Elective Course
14	EHK474	Quantitative Ecology	3 (2-1)	Elective Course
15	EHK475	Ethics and Environment Law	3 (2-1)	Elective Course
Total Credits			45	

Table 8. The list of elective courses of Forest Product Technology Major

1	EHT351	Physical and Mechanical Wood Properties	3 (2-1)	Elective Course
2	EHT352	Wood Preservation	3 (2-1)	Elective Course
3	EHT353	Wood Drying technology	3 (2-1)	Elective Course
4	EHT361	Forest Products Research Methodology	3 (2-1)	Elective Course
5	EHT362	Wood Chemistry and Anatomy	3 (2-1)	Elective Course
6	EHT364	Wood adhesive and adhesion	3 (2-1)	Elective Course
7	EHT365	Wood working	3 (2-1)	Elective Course
8	EHT366	Wood Construction Materials	3 (2-1)	Elective Course
9	EHT471	Pulp and Paper technology	3 (2-1)	Elective Course
10	EHT472	Biomass and Energy	3 (2-1)	Elective Course
11	EHT473	Oil Extraction Technology	3 (2-1)	Elective Course
12	EHT474	Wood Bio composite	3 (2-1)	Elective Course
13	EHT475	Rattan and Bamboo Processing Technology	3 (2-1)	Elective Course
14	EHT476	Honey and Medical Plant Processing Technology	3 (2-1)	Elective Course
Total Credits			45	