AQAS

AGENTUR FÜR
QUALITÄTSSICHERUNG DURCH
AKKREDITIERUNG VON
STUDIENGÄNGEN E.V.

FINAL REPORT

UNIVERSITAS PENDIDIKAN GANESHA

SCIENCE EDUCATION

SCIENE EDUCATION (BACHELOR OF EDUCATION)

SCIENCE EDUCATION (MASTER OF EDUCATION)

August 2023

Content

DECISION OF THE AQAS STANDING COMMISSION

ON THE STUDY PROGRAMMES

- **"SCIENCE EDUCATION" (BACHELOR OF EDUCATION)**
- **"SCIENCE EDUCATION" (MASTER OF EDUCATION)**

OFFERED BY UNIVERSITAS PENDIDIKAN GANESHA, SINGARAJA, INDONESIA

Based on the report of the expert panel and the discussions of the AQAS Standing Commission in its 18th meeting on 21 August 2023, the AQAS Standing Commission decides:

1. The study programmes "**Science Education**" (**Bachelor of Education**) and "**Science Education**" (**Master of Education**) offered by **Universitas Pendidikan Ganesha**, **Indonesia** are accredited according to the AQAS Criteria for Programme Accreditation (Bachelor/Master).

   The accreditations are conditional.

   The study programmes essentially comply with the requirements defined by the criteria and thus the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and the European Qualifications Framework (EQF) in their current version. The required adjustments can be implemented within a time period of twelve months.

2. The conditions have to be fulfilled. The fulfilment of the conditions has to be documented and reported to AQAS no later than **30 September 2024.** The confirmation of the conditions might include a physical site visit within the time period of twelve months.

3. The accreditation is given for the period of **six years** and is valid until **30 September 2029.**

Conditions:

<u>For both study programmes:</u>

1. An analysis to review if a sufficient number and types of equipment are available in its labs must be conducted. Because some changes might not be possible at short notice, it is requested that a strategic plan (including an action plan) is developed to improve the laboratory infrastructure which has to be handed in to show the expectable improvement.
2. UNDIKSHA must develop a concept regarding safety standards for risk prevention in the laboratories with the following integral parts:
   a. A thorough analysis of risks in practical work in the laboratory according to international standards.
   b. The development and implementation of an appropriate concept for handling and storage of risk chemicals, including necessary support staff to ensure laboratory safety and management of chemicals.
   c. The implementation of the teaching of laboratory safety to students.
   d. The provision, stronger operation and control of personal risk protection equipment.
3. The intended learning outcomes must be reflected and in parts reformulated. As a consequence, the course descriptions must be revised in order to improve their competence orientation.

   Within this process of revision:

   a. the intended learning outcomes (ILOs) must be more focussed on the core competencies,

b. the exam formats must be oriented towards the competencies formulated in the ILOs,
c. the literature references must be updated, and
d. specification of the requirements for midterm and final assessments have to be described.

4. The regulations for recognition of achievements of students at foreign universities must be described transparently. A system to converse and recognize credits (e.g. SKS into ECTS) in a structured manner must be implemented.

Additionally for the study programme "Science Education (Bachelor)":

5. A concept must be handed in how to include inclusive education and teaching for special needs students in schools.

The following **recommendations** are given for further improvement of the programmes:

For both study programmes:

1. The internationalisation of the study programmes should be strengthened, e.g., by
    a. fostering the exchange of staff and students with learning agreements,
    b. supporting the use of the English language,
    c. inviting guest lecturers from the region and beyond.
2. Feedback from external and internal stakeholders should be collected in a more structured and regular way.
3. The Faculty should explore options for increased networking between the different programmes at faculty level to explore synergies for the study programmes.
4. UNDIKSHA should close the feedback loop by consistently sharing survey results and QM results with all stakeholders.
5. The workload of lecturers and students should be measured separately and regularly to identify areas where the workload can be improved and balanced for both parties.
6. The Faculty should continue to track the student cohorts' progress and should include collecting data on how long the average and actual time to successfully finishing the study programme is.
7. The Faculty should monitor the outcomes of the exams in its programmes regularly and closely.
8. A review of the admission regulations should be conducted. Next to clearly defined and publicly accessible regulations for admission, the regulations should implement competence-based criteria for admission. Attention should be paid to two points in particular:
    a. The admission process should include potential students suffering from colour-blindness.
    b. The medical check should be reconsidered.
9. The Diploma Supplement provided for the study programmes should comply with international standards, and a Transcript of Records should be provided to the students.
10. The availability of databases and online resources for the research of students and teaching staff should be expanded even further**.**
11. The website of each study programme should provide a comprehensive list of all courses offered.

12. A cohesive structure and guidelines should be developed and implemented which core information for each programme are provided on the website to increase the comparability and transparency for the stake-holders.

Additionally for the study programme “Science Education (Bachelor)”:

13. An additional focus on teaching international curricula should be included in the existing curriculum.
14. A regulation that sets a time and/or page limit for the final thesis should be introduced in order to monitor the workload related to it.

With regard to the reasons for this decision the Standing Commission refers to the attached experts’ report.

EXPERTS' REPORT

ON THE STUDY PROGRAMMES

- **"SCIENCE EDUCATION" (BACHELOR OF EDUCATION)**
- **"SCIENCE EDUCATION" (MASTER OF EDUCATION)**

OFFERED BY UNIVERSITAS PENDIDIKAN GANESHA, SINGARAJA, INDONESIA

Visit to the university: 07 – 10 February 2023

Panel of experts:

Prof. Dr. Ingo Eilks	University of Bremen, Institute of Didactics of Science Education - Chemistry Department
Prof. Dr. Joachim Wegener	University of Regensburg, Institute of Analytical Chemistry
Ms. Pesta Augustina Marbun	Teacher at Global Prestasi School, Jakarta (representative of the labour market)
Mr. Albrecht Martin Bloße	Student at Leipzig University (student representative)

Coordinator:

Maria Rentmeister	AQAS, Cologne, Germany
Doris Herrmann	

I. Preamble

AQAS – Agency for Quality Assurance through Accreditation of Study Programmes – is an independent non-profit organisation supported by more than 90 universities, universities of applied sciences and academic associations. Since 2002, the agency has been recognised by the German Accreditation Council (GAC). It is, therefore, a notified body for the accreditation of higher education institutions and programmes in Germany.

AQAS is a full member of ENQA and also listed in the European Quality Assurance Register for Higher Education (EQAR) which confirms that our procedures comply with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), on which all Bologna countries agreed as a basis for internal and external quality assurance.

AQAS is an institution founded by and working for higher education institutions and academic associations. The agency is devoted to quality assurance and quality development of academic studies and higher education institutions' teaching. In line with AQAS' mission statement, the official bodies in Germany and Europe (GAC and EQAR) approved that the activities of AQAS in accreditation are neither limited to specific academic disciplines or degrees nor a particular type of higher education institution.

II. Accreditation procedure

This report results from the external review of the undergraduate programmes "Science Education" (Bachelor of Education) and of the graduate programme "Science Education" (Master of Education), offered by Universitas Pendidikan Ganesha in Singaraja, Indonesia.

1. Criteria

Each programme is assessed against a set of criteria for accreditation developed by AQAS: the AQAS Criteria for Programme Accreditation (Bachelor/Master). The criteria are based on the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015. To facilitate the review each criterion features a set of indicators that can be used to demonstrate the fulfilment of the criteria. However, if single indicators are not fulfilled this does not automatically mean that a criterion is not met. The indicators need to be discussed in the context of each programme since not all indicators necessarily can be applied to every programme.

2. Approach and methodology

Initialisation

The university mandated AQAS to perform the accreditation procedure in May 2021. The university produced a Self-Evaluation Report (SER). In January 2022, the institution handed in a draft of the SER together with the relevant documentation on the programmes and an appendix. The appendix included e.g.:

- an overview over statistical data of the student body (e.g., number of applications, beginners, students, graduates, student dropouts),
- the CVs of the teaching staff
- information on student services,
- core information on the main library,
- as well as academic regulations.

AQAS checked the SER regarding completeness, comprehensibility, and transparency. The accreditation procedure was officially initialised by a decision of the AQAS Standing Commission on 21 February 2022. The final version of the SER was handed in June 2022.

Nomination of the expert panel

The composition of the panel of experts follows the stakeholder principle. Consequently, representatives from the respective disciplines, the labour market, and students are involved. Furthermore, AQAS follows the principles for the selection of experts defined by the European Consortium for Accreditation (ECA). The Standing Commission nominated the aforementioned expert panel in August 2022. AQAS informed the university about the members of the expert panel and the university did not raise any concerns about the composition of the panel.

Preparation of the site visit

Prior to the site visit, the experts reviewed the SER and submitted a short preliminary statement including open questions and potential needs for additional information. AQAS forwarded these preliminary statements to the university and to all panel members in order to increase transparency in the process and the upcoming discussions during the site visit.

Site visit

After a review of the SER, a site visit to the university took place on 07-10 February 2023. On-site, the experts interviewed different stakeholders, e.g. the management of the higher education institution, the programme management, teaching and other staff, as well as students and graduates, in separate discussion rounds and consulted additional documentation as well as student work. The visit concluded by the presentation of the preliminary findings of the group of experts to the university's representatives.

Reporting

After the site visit had taken place, the expert group drafted the following report, assessing the fulfilment of the AQAS Criteria. The report included a recommendation to the AQAS Standing Commission. The report was sent to the university for comments.

Decision

The report, together with the comments of the university, forms the basis for the AQAS Standing Commission to take a decision regarding the accreditation of the programmes. Based on these two documents, the AQAS Standing Commission took its decision on the accreditation on 21 August 2023. AQAS forwarded the decision to the university. The university had the right to appeal against the decision or any of the imposed conditions.

In October 2023, AQAS published the report and the result of the accreditation as well as the names of the panel of experts.

III. General information on the university

Universitas Pendidikan Ganesha (UNDIKSHA) is a state university located in Singaraja in the Bali province. The university is structured along 7 faculties and a Postgraduate Programme: Faculty of Education, Faculty of Law and Social Sciences, Faculty of Languages and Arts, Faculty of Mathematics and Natural Sciences, Engineering and Vocational Faculty, Faculty of Sport and Health, as well as Faculty of Economics. In total, the university offers 67 programmes to a student number of 12,750.

UNDIKSHA developed from a teacher training institute to its current state as an independent state university, which was granted in 2006. Its vision is defined in a Strategic Plan 2020-2024 and it follows a *Tri Hita Karana* philosophy, which subsumes learning and teaching, research and community service. UNDIKSHA strives to become a leading university in Asia by 2045.

The Bachelor's study programme to be accredited is part of the Faculty of Mathematics and Natural Sciences (FMIPA). The faculty has 1,540 students and offers in total 13 study programmes in 4 departments, e.g. an undergraduate programme in Biology Education and an undergraduate programme in Mathematics. The Master degree programme of this procedure is affiliated with the Postgraduate Programme.

The faculty is headed by a dean, the Postgraduate Programme by a director. The chemistry-related undergraduate programmes of this procedure belong to the Chemistry Department of the Faculty. The science education-related undergraduate programmes belong to the Physics & Sciences Education Department. There is a separate Institution of Research and Community Service on the university level whose goal is to coordinate research activities, including those of FMIPA.

IV. Assessment of the study programmes

1. Quality of the curriculum

Bachelor's/Master's degree

The intended learning outcomes of the programme are defined and available in published form. They reflect both academic and labour-market requirements and are up-to-date with relation to the relevant field. The design of the programme supports achievement of the intended learning outcomes.

The academic level of graduates corresponds to the requirements of the appropriate level of the European Qualifications Framework.

The curriculum's design is readily available and transparently formulated.

[ESG 1.2]

Description

General

The description of the programme learning outcomes at UNIDKSHA is structured into four categories: Attitudes, Knowledge, General Skills and Specific Skills. Programme learning outcomes are said to refer to national standards and the Indonesian Qualifications Framework on the corresponding level.

The programmes use the Indonesian credit system to assign workload. The Indonesian Universities use a specific way to compare their national system with the European Credit Point System: 150 SKS would be equivalent to 238 ECTS. The university states in the SER that 1 SKS is equivalent to students taking part in 50 minutes of scheduled face to-face activities, 60 minutes of structured academic activities, and 60 minutes of independent actions every week in the semester (170 minutes in total). During the semester, each course is carried out in 16 meetings (14 lessons and two meetings for exams).

General Remarks by the experts about both programmes:

The panel of experts comes to the overall conclusion that the teacher education programmes in this cluster are suitable for preparing future teachers for Indonesia. Both programmes in this cluster are feasible, well-organized and highly structured. The school representatives approved that the graduates are able to fulfil their profession and described the graduates as engaged and professional science teachers. Nevertheless, there is a need to sharpen the profiles of the different programmes individually as the panel of experts comes to slightly different evaluations of the programmes offered.

During the site visit, the experts learned that several of the questions that they saw critical in the beginning were based on national regulations, thus the impression of the performance of Ganesha University got more positive day by day and also the student feedback showed, that the programmes are highly appreciated by the students, graduates and representatives of the local labour market. Moreover, the panel of experts saw a positive learning atmosphere between staff and students.

1.1 Science Education (Bachelor)

The Bachelor's programme Science Education established two profiles for its graduates as stated in the SER: sciences educators (teachers) and entrepreneurs in the field of science education. Based on the two profiles, eight programme learning outcomes have been designed and are sorted into the four categories: Attitude, Knowledge, General Skills and Specific Skills. While the category of attitude mostly draws upon the role of the students and their responsibility in society, the category of mastery of knowledge refers to specific expertise the students must have gained related to their studies. This includes for example being able to implement science concepts and to develop professional skills of educational values. The category of general skills contains learning outcomes that are generally gained in this line of study such as being able to integrate learning and innovation skills or being able to apply logical, critical, systematic and innovative thinking. The category of specific skills consequently is more focused on learning outcomes that refer to this specific study programme, for example making innovative science lesson plans, conducting effective learning and communicating inside and outside the classroom.

The SER demonstrates that the curriculum of the Science Education programme consists of 149 SKS. The courses of the curriculum are structured into four categories. General Compulsory Courses in semesters 1 and 2 include 5 general courses, such as Pancasila, Religious values and English (10 SKS in total). In the National Qualification Framework it is stated that students and graduates master the theoretical concepts of sciences in general and the theoretical concepts of special sections in the field of sciences in-depth and are able to formulate procedural problem-solving. Knowledge of sciences in general and in-depth can be obtained through learning in core scientific courses (93 SKS) and supporting sciences and technology (41 SKS). The range of courses covers topics coming from Chemistry, Biology and Physics and includes science-related courses such as "General Biology II" as well as education-related courses such as "Educational Insights". Study Programme Specific Courses make up 5 SKS of the curriculum, including e.g. a course on "Ethno-Science and local Wisdom". The last category of courses is the Elective Courses, included in this category are 9 SKS that can be chosen from outside the study programme's curriculum, labelled "Cross Study programme", as well as 14 SKS that can be taken outside the University e.g. through a student's exchange at a partner university or through an independent study project or other possibilities. The curriculum includes mandatory internships ("teaching practicum 1 & 2") as well as a mandatory thesis.

According to the university, the curriculum is reviewed and adjusted according to the needs of the working sector. The last review took place in 2020 by implementing the national MBKM Regulation ("Freedom of Learning") which was implemented by including the "Cross Study programme" elective courses as well as the "Student's Exchange" elective course mentioned above. The aim is, as stated in the SER, to produce civilized, knowledgeable, professional, and competitive graduates in the industrial era 4.0.

Experts' evaluation

In the experts' opinion, the curriculum in Science Education is broad and provides a systematic theoretical education in all domains relevant to future science teachers. All core science disciplines are presented, including innovative curriculum elements like environmental and indigenous science. The courses provide subject-specific and interdisciplinary elements; they cover subject-specific and cross-subject knowledge as well as subject-related, methodological, and general skills. The programme includes several elements of laboratory training. Overall, the experts conclude that the University should analyse the technical equipment in chemical laboratories in number and quality and whether technical infrastructure complies with a timely education of students with respect to their laboratory skills. In short, an analysis to review if a sufficient number and types of equipment with established safety standards are available in its labs must be conducted. Depending on the outcome, improvements must be made to allow the students the most suitable experience in practical work in the laboratories. Because some of the changes might not be possible at short notice, the experts request that a strategic plan (including action plan) is developed to improve the laboratory infrastructure **(Finding 1)**. The programme includes several elements of laboratory training. A risk analysis is suggested and a more binding concept of wearing personal protection equipment when it comes to practical work in the laboratory. Overall, a risk assessment plan and according to measures must be implemented to reduce risks and hazards for students and teachers during practical work in the laboratory and by the storage of risk chemicals **(Finding 2)**. An appropriate concept for handling and storage of risk chemicals needs to be developed and implemented. This includes support staff to ensure laboratory safety and management of chemicals **(Finding 2a)**. In this regard, it is needed to analyse and improve the laboratory training courses in terms of risks analyses and the provision of hazards **(Finding 2b)**. A stronger operation and control of personal risk protection equipment is needed **(Finding 2c)**. A thorough analysis of risks in practical work in the laboratory according to international standards must take place **(Finding 2d)**. Since the scientific level of chemical experiments conducted in the laboratory is significant lower and the chemicals that are used along the chemical training are significantly less harmful compared to chemistry programmes also offered at the university, the necessity to improve safety standards and instrumentation is not as severe as in the chemistry programmes. But nevertheless, improvements should be made to allow the students the most suitable and safe experience in practical work in the laboratories.

The courses in the domain of education and the school curriculum are extensive. The experts positively highlight that innovative elements are included, like teaching experiences in the micro teaching lab. A closer additional focus on teaching international curricula would be an important point for improving the existing curriculum **(Finding 3)**. Offering subjects that prepare students to teach international curricula, such as IB, Cambridge, and EdExcel, will give graduates an advantage in the job market, as these skills are in high demand. However, a missing element in the study programme is an explicit focus on inclusive education and teaching science to students with special needs. An addition to the programme must be made to educate the prospective science teachers for inclusive education and teaching science to students with special needs. The programme must hand in a concept on how to include inclusive education and teaching for special needs students in schools into the science teacher education programme **(Finding 4)**.

Several aspects that are already mentioned for the other BA programmes are also of relevance for the Science Education programme. This refers to the intended learning outcomes, to the course descriptions as well as to the internationalisation of the programme.

The ILOs are broad and reflect both, academic/scientific and labour market requirements. Based on the feedback provided by students and labour market experts, the experts conclude that the achieved learning outcomes are appropriate. The outline of the intended learning outcomes is, however, in parts quite general. A more thorough and reflected outline of the ILOs would make a better base for more mutual and binding understanding between teachers and students. The intended learning outcomes need to be reflected and in parts

reformulated to support the students in the learning process by providing transparency. The course descriptions must be revised in order to improve their competence orientation **(Finding 5)**. Within this process of revision, the intended learning outcomes (ILOs) must be more focussed on the core competencies **(Finding 5a)**, the exams must refer to the ILOs **(Finding 5b)**, and the literature references must be updated **(Finding 5c)**.

The academic degree corresponds to the learning outcomes and the requirements of the appropriate level of the European Qualifications Framework. National regulations are taken into account. The curricular structure of the programme supports the achievement of the intended learning outcomes and the learner's progression by a detailed system of assessments in the courses. An idealised typical course plan is suggested to students and was provided to the panel of experts. The curricular elements including their functions, their compulsory or elective character and their usage are documented. The total programme workload is correctly and transparently allocated to the different courses/modules. Mechanisms of evaluation and student feedback are implemented. However, the panel of experts points out that for continuous improvement of the curriculum, feedback from external and internal stakeholders should be collected in a more structured and regular way **(Finding 6)**. Additionally, the faculty should explore options for increased networking between the different programmes on the faculty level to explore synergies for the study programmes **(Finding 7)**.

Overall, the panel of experts wishes to point out that the internationalisation of the programme should be strengthened **(Finding 8)**, e.g., by fostering the exchange of staff and students **(Finding 8a)** and by supporting the use of the English language. Based on students' feedback, the experts recommend expanding the number of curricular elements in the English language to provide graduates with a strong basis for an academic or international career **(Finding 8b)**. In addition, guest lecturers from the region and beyond should be invited **(Finding 8c)**.

Conclusion

The criterion is partially fulfilled.

1.2 Science Education (Master)

The Master's programme Science Education established two profiles for its graduates as stated in the SER: They can become "Sciences Education and Teaching Experts", who are able to develop sciences and technology in the sciences education and teaching field through research and professional practice or they can become "Researchers in Sciences Education", who are able to solve problems in sciences education and teaching through scientific research. The nine programme learning outcomes of the Master's programme are as well based on the four categories Attitude, Knowledge, General Skills and Specific Skills. While the category of attitude mostly draws upon the role of the students and their responsibility in society, the category of mastery of knowledge refers to specific expertise the students must have gained related to their studies. This includes for example mastering concepts, theories, and research methods in sciences education management and teaching. The category of general skills contains learning outcomes that are gained generally in this line of study such as being able to integrate learning and innovation skills or being able to apply logical, critical, systematic and innovative thinking. The category of specific skills consequently is more focused on learning outcomes that refer to this specific study programme, for example being able to apply scientific methods in research activities, for the development of science and technology, professional practices, and policies in sciences education and teaching.

The SER states that the curriculum of the Science Education Master's programme consists of 14 courses and 40 SKS. All the courses of the Master's curriculum are Core Study Courses. Examples of courses are

"Philosophy of Education" or "Strategy and Design of Science Learning". One course is elective and the students can choose from three possibilities. The curriculum includes research methodology and a thesis.

It is stated that the exclusive characteristic, which distinguishes the programme from other study programmes, is the focus on pedagogy and development of sciences education and its relation to the development of sciences (future sciences) and future sciences technology. The job opportunities of graduates named by the university include teaching sciences subjects such as Chemistry, Physics, and Biology. In addition, graduates can become school principals, curriculum representatives, laboratory supervisors, and lecturers at both public universities and private colleges.

According to the university, the curriculum of the Master programme in Sciences Education has been reviewed every five years and is updated through focus group discussions. The last review took place in 2020.

Experts' evaluation

In the experts' opinion, the curriculum in the Master's programme "Science Education" is appropriate. The study programme provides subject-specific and interdisciplinary elements, subject-related, methodological and general skills.

The intended learning outcomes are broad and reflect both, academic/scientific and labour market requirements. Based on the feedback provided by students and labour market experts, the experts conclude that the achieved learning outcomes are appropriate. The outline of the ILOs is, however, in parts quite general. A more thorough and reflected outline of the intended learning outcomes would make a better base for more mutual and binding understanding between teachers and students. The intended learning outcomes need to be reflected and in parts reformulated and it would be advisable to compare them with the programmes offered at international universities abroad (see Finding 5). The course descriptions must be revised in order to improve their competence orientation. Within this process of revision, the intended learning outcomes (ILOs) must be more focussed on the core competencies **(Finding 5a)**, the exams must refer to the ILOs **(Finding 5b)**, and the literature references must be updated **(Finding 5c)**.

The academic degree corresponds to the learning outcomes and the requirements of the appropriate level of the European Qualifications Framework. National regulations are taken into account. The curricular structure of the programme supports the achievement of the ILOs. An idealised typical course plan is suggested to students and was provided to the panel of experts. The curricular elements including their functions, their compulsory or elective character and their usage are documented. The total programme workload is correctly and transparently allocated to the different courses/modules. Mechanisms of evaluation and student feedback are implemented. While the panel of experts learned that the curriculum is reviewed regularly, the experts strongly suggest that feedback from external and internal stakeholders should be collected in a more structured and regular way (see Finding 6).

What is said in this report about the necessity of internationalisation of the other programmes is especially also true for the Master's level. Overall, the panel of experts wishes to point out that the internationalisation of the programme should be strengthened regarding a wide range of aspects (see Finding 8). Additionally, the faculty should explore options for increased networking between the different programmes on the faculty level to explore synergies for the study programmes **(Finding 7)**.

Conclusion

The criterion is partially fulfilled.

2. Procedures for quality assurance

Bachelor's/Master's degree

The programme is subject to the higher education institution's policy and associated procedures for quality assurance, including procedures for the design, approval, monitoring, and revision of the programmes.

A quality-oriented culture, focusing on continuous quality enhancement, is in place. This includes regular feedback mechanisms involving both internal and external stakeholders.

The strategy, policies, and procedures have a formal status and are made available in published form to all those concerned. They also include roles for students and other stakeholders.

Data is collected from relevant sources and stakeholders, analysed, and used for the effective management and continuous enhancement of the programme.

[ESG 1.1, 1.7 & 1.9]

Description

Several departments, committees and working groups are outlined by UNDIKSHA to carry out quality assurance at the university, faculty and programme levels. To realize a functioning quality assurance system on the university level, UNDIKSHA states that a Quality Assurance Center (PJM) was formed, as well as Quality Control Units on the faculty and programme level. Every year, an "Internal Quality Audit" is conducted. Some of the mechanisms of the audit described in the SER include the formation of internal auditor panels and their training as well as the examination of study programmes by files and by field visits, concluding with a report. The documents, prepared by the Quality Control Unit to facilitate quality assurance, include National Education Standards, Research National Standards, Community Service Standards, and Non-Academic Standards.

The teaching and learning process is monitored and evaluated by the faculty by distributing questionnaires to the students in the beginning, middle and end of lectures each semester, as described by UNDIKSHA. Following the explanation, the questionnaire given at the beginning of the lesson aims to determine the readiness of the supporting documents given to students, the questionnaire mid-lecture aims to determine the learning process, and the questionnaire at the end of the lecture aims to determine the learning outcomes that have been designed. It is said that a Management Findings Meeting is set up to use the results for improvement of the coming academic year.

UNDIKSHA describes that stakeholder involvement plays an essential role in their quality assurance system and that internal stakeholders such as lecturers, students and education staff as well as external stakeholders such as industry, university, community partners are included by obtaining their feedback annually with surveys. Tracer studies, graduate user satisfaction surveys and suggestions from alumni are carried out / collected by the Technical Implementation Unit for Career Development and Student Entrepreneurship.

UNDIKSHA states that it uses the PPEPP or Perencanaan, Pelaksanaan, Evaluasi, Pengendalian, dan Peningkatan (Determination, Implementation, Evaluation, Control and Improvement) cycle for its quality assurance system. The results of monitoring and evaluation activities are said to be documented and open to the public on the faculty's website.

Experts' evaluation

The Science Education Cluster provides a well-implemented QM system based on the national regulations. The experts gained the impression that the collected results of the many surveys conducted can be used to hugely improve the quality of teaching at UNDIKSHA. During the site visit, the panel of experts was presented a dashboard on QM results of which the level of presentation looked professional. However, during the site visit, the panel of experts learned that the survey results were not shared with all stakeholders of UNDISKHA,

e.g., the students. Accordingly, the panel of experts recommends closing the feedback loop even further and to communicate the results and changes based on feedback to students **(Finding 9)**.

The expert group suggests measuring the workload of lecturers and students separately and regularly and to adept the workload, if necessary **(Finding 10)**. By measuring the workload of lecturers and students separately, it can help identify areas where the workload can be improved and balanced for both parties. Regular measurement can also help to identify any changes or trends that may occur over time. The communication of survey results and resulting changes to students can also be beneficial for them, as it allows them to have a better understanding of the efforts being made to improve their educational experience. By closing the feedback loop and communicating results in an aggregated form, students can see the overall improvements being made, which can help improve their motivation and engagement in their studies.

The panel of experts took note of the structured meeting between faculty and staff to discuss the results of the evaluations. As an addition, the expert panel encourages collecting feedback from external and internal stakeholders in a more structured and regular way, introducing different forms of exchange with university and students can foster the development of independent students (see above).

The panel of experts learned that UNDIKSHA takes track of the students and admissions to the university courses. The experts suggest to further develop this into tracking the cohorts and to collect data on how long the average and actual time to successfully finishing the study programme is **(Finding 11)**.

Conclusion

The criterion is fulfilled.

3. Learning, teaching and assessment of students

Bachelor's/Master's degree

The delivery of material encourages students to take an active role in the learning process.

Students are assessed using accessible criteria, regulations, and procedures, which are made readily available to all participants and which are applied consistently.

Assessment procedures are designed to measure the achievement of the intended learning outcomes.

[ESG 1.3]

Description

All study programmes aim to achieve learning targets that meet both the learning objectives and graduate quality standards, which are essential to be accountable to stakeholders. The student-centred learning paradigm is said to be used by the faculty as well as the postgraduate school for their programmes and is aimed at students' development according to their potential while the lecturer shall only act as a facilitator in the class. Learning methods are stated in a semester lesson plan (RPS). Included are problem-based learning, project-based learning and case studies. The skills to be achieved through these methods are collaboration, critical thinking, creativity and communication skills.

The SER elaborates that lectures are conducted face-to-face and via online classes by using the e-learning platform of UNDIKSHA or another learning management system. Strategies used by lecturers are said to be expository, to include cooperative strategies, discussions, assignments, discovery inquiry, problem-solving, demonstrations, project-based learning, and laboratory experiments.

The Ministry of Education has provided regulations on how to count the final mark from all assessments. The evaluation model focuses on the tasks that students perform. If they fail an exam, the average is still considered good enough to pass the class.

Examinations are conducted twice a semester through a mid-semester test and a final test which are scheduled in advance and visible in the academic calendar. Attendance is a prerequisite to take part in the final test (75% of the total meetings and/or 100% of the practicum). The final mark is calculated based on participation (20%), tasks (40%), middle test (15%), and final exam (25%). If a student fails, they can retake the exam the following year, but they must complete in a maximum of seven semesters.

Experts' evaluation

The panel of experts experienced during the site visit that UNIDIKSHA has implemented a standardised learning process that includes planning, implementation and student workload to reach the goals described in the SER. The learning process involves interactions among lecturers, students, and resources within a learning environment, and is structured and systematic with measurable workload through various courses. To achieve specific abilities and fulfil learning outcomes for each course, the experts conclude that effective methods based on a student-centred learning approach are implemented.

On the one hand, research is a crucial learning process that involves students' activities under the guidance of a lecturer to develop knowledge, skills, and improve the national competitiveness. This learning process is actualized in the Final Project and Thesis. On the other hand, community service is a learning process under the guidance of lecturers that aims to utilize science and technology to promote public welfare and enrich the nation's life. This learning process is realized through the KKN or Kuliah Kerja Nyata (Community Engagement Programme) courses. Both research and community service are important aspects of learning that enable students to apply their knowledge and skills to real-life situations, enhancing their practical skills and contributing to society. Furthermore, the two types of problem-based learning and project-based learning are well-established at UNDIKSHA. The experts support the already established idea of linking university knowledge so closely to the problems of the surrounding society.

UNDIKSHA recognizes and values the diversity of its students and provides various programmes and strategies in both academic and non-academic areas. The university offers both face-to-face and online courses to ensure accessibility and flexibility for all students. The *Tri Hita Karana Philosophy*, which emphasizes the importance of harmony and balance between humans, nature, and God, is incorporated into all study programme visions, reflecting the university's mission to continuously improve the quality of education, particularly in teacher education. Courses are designed to provide students with both theoretical and practical knowledge, with a well-arranged proportion of theory and practical work.

The programmes which are targeting on teachers' training include a practical component known as PPL, which stands for "Praktek Pengalaman Lapangan" or field experience practicum. The programme integrates prior learning experiences and involves teaching performance, including various teaching positions and duties, which are systematically scheduled and collaboratively facilitated by a Supervisor and a Teacher Supervisor. PPL is divided into several stages, starting from field orientation to independent training, and is designed to enhance the teaching skills of students.

According to the information given, assessments, both formative and summative, are explained by the lecturer at the beginning of the course. The lecturer is willing to make changes to exams, and students can suggest changes. Assessment scores are checked at the end of the course to determine if the learning outcomes described in the course handbook have been achieved. The tests are designed to test the competencies of the students, and they assess both thinking and practice.

The panel of experts got the impression that UNDIKSHA's education programmes have been successful in producing high-quality graduates who are well-prepared to excel in their chosen fields. However, there are some areas where improvements can be made to further enhance the quality of education provided.

It is important to evaluate the number of micro-teaching labs to ensure they are sufficient for the number of students using them, particularly if the number of students in each batch is increasing (see Finding 1). This will ensure that every student receives the necessary practical experience to complement their theoretical knowledge.

Creating an English-speaking environment on campus will enable UNDIKSHA to better compete in the global arena. As mentioned above, measures should be taken to improve the English language skills of teaching staff, increasing the number of classes taught in English or providing more sources in English. The panel of experts recommend that the English competencies of staff and students should be aligned with the requirements of international labels and certificates and described accordingly **(Finding 8d)**.

During the site visit, a selection of final projects as well as BA and MA theses were made available to the experts for review. Overall, the panel of experts found the Bachelor theses to be impressive but quite elaborate. The experts thus recommend discussing and introducing a regulation that sets a time and/or page limit in order to keep the volume of these theses within reasonable limits for all Bachelor's study programmes **(Finding 12)**.

The panel of experts would like to encourage UNDIKSHA to include more open discussions with the students as a teaching method in the seminars to improve the quality of education and teaching even further. Open discussions with students can be a valuable tool for improving the quality of education and teaching, as long as they are conducted in a constructive and respectful manner.

As already stated above in more detail, the experts expect that the graduate's qualifications could be further improved by strengthening the teaching of topics that are in high demand by the labour market. First, the teaching for the educational programmes at UNDIKSHA should in include an additional focus on teaching international curricula. Second, providing training and education on inclusive teaching students with special needs is essential in ensuring that UNDIKSHA graduates are well-equipped to handle a diverse range of learners (see Findings 3 and 4).

UNDISKHA has achieved a zero-failure rate among its students in all exams and courses. The panel of experts discussed this phenomenon with the teaching staff and learned that this was explained with the good preparation of the students and an unlimited number of repeats until eventually successful. The panel of experts could follow the explanation given but recommends that UNDIKSHA monitors the outcomes of the exams in its programmes regularly and closely **(Finding 13)**.

UNDIKSHA can stay up-to-date with the changing demands of the job market by evaluating and ensuring that students acquire the skills and knowledge needed for success in their onward professional career.

Conclusion

The criterion is fulfilled.

4. Student admission, progression, recognition and certification

Bachelor's/Master's degree
Consistently applied, pre-defined, and published regulations are in place which cover student admission, progression, recognition, and certification.
[ESG 1.4]

Description

Admission to the Bachelor's programme is granted through three pathways, namely the recruitment of prospective new students through State University National Entrance Exam, via Joint Entrance Selection of State Universities and an Independent Entrance Selection of New Students. Except for the last pathway, the entrance selection is organized on a national level. The selection of new students in the Master's programmes is coordinated by a New Student Admissions Committee at UNDIKSHA.

To enter the programme of Science Education it is said that new students must have a formal education (Senior High School/Madrasah Aliyah/Vocational High School) or the equivalent and come from sciences majors with new graduate status (max. one year before). New students cannot be colour blind and must do a medical check-up test.

According to the SER, mechanisms of recognition are in place at the university and even recognition of prior learning is taken into account in the admission process. Also, the national regulation of "Freedom of Learning" (MBKM) was implemented by UNDIKSHA programmes which allows students to spend time outside of university, such as in taking courses at other universities or doing an internship, while recognizing the student's achievement. The SER gives an example that within this programme a cooperation between MCUT Taiwan and UNDIKSHA Chemistry Study programme was developed.

Students have academic evaluation results signed by their academic advisors each semester to monitor their progression.

The SER states that graduates receive Diplomas, Academics Transcripts and Diploma Supplements at the end of their studies.

Experts' evaluation

Based on the documents provided and the discussions during the site visits, the panel of experts learned that out of three admission pathways to the undergraduate programmes only the third one is not controlled by national regulation but accounted for by UNDIKSHA. The panel of experts recognized some elements of the admission process that should be revisited and re-evaluated. In general, the rules of the admission process, as far as not defined by national regulations, should be made transparent for students, publicly accessible and they should be based on competencies of the future students **(Finding 14)**. Attention should be paid to two points in particular: First, the admission process should include potential students suffering from colour-blindness **(Finding 14a)**. The experts certainly appreciate that colour vision is an important sense that might be needed or is at least helpful during laboratory work. However, the same is true for other senses. As such, a focus that colour-blindness is a reason for exclusion is not justified and the experts recommend revisiting and re-evaluating this criterion of admission. Second, the admission process accounted for by UNDIKSHA also includes a medical check. However, this medical check and its criteria have not been documented. Therefore, the panel of experts also recommends strongly to revisit this criterion and to eliminate it. At least, the university should be transparent on which physical criteria may lead to an exclusion from the study programmes **(Finding 14b)**. Next to clearly defined and publicly accessible regulations, the regulations should implement competence-based criteria for admission.

Learning progression is closely reported and documented at UNDIKSHA. The university has installed an academic advisor for any student. The academic advisors discuss learning progression with the individual student in regular intervals, grades as well as the courses to be taken in the next semester. Every lecturer takes care of a maximum of 20 individual students. The experts wish to highlight that the feedback from students on the implementation of such a personal advisor was positive throughout. Accordingly, the panel of experts supports this time-consuming system of personal mentoring by academic lecturers as it helps the progression of students throughout the study programme. It seems to provide a very direct, personal, and tailored means of consultation.

For international students, there is currently no process established that provides a formally based recognition of courses or competences acquired in other universities or extracurricular, following the Lisbon convention. Currently, rules for recognition of external coursework are not documented. The experts strongly advise to develop structural concepts and processes for incoming and outgoing students. Such processes are vital and a prerequisite to increasing internationalisation. For all study programmes in this cluster, Universitas Pendidikan Ganesha must describe its regulations for recognition of achievements of students at foreign universities transparently. A system to converse and recognize credits in a structured manner should be implemented **(Finding 15)**. Next to recognition of courses and competencies from other universities, the university should consider the use of learning agreements to support exchange of UNIDKISHA students to other universities worldwide (see Finding 8).

The panel of experts has identified that the current Diploma Supplement does not fully comply with international standards yet which should be corrected. Besides other elements, an English translation of the thesis title seems important for students applying for positions abroad. Moreover, a Transcript of Records should be handed out to the graduates **(Finding 16)**.

Conclusion

The criterion is partially fulfilled.

5. Teaching staff

Bachelor's/Master's degree

The composition (quantity, qualifications, professional and international experience, etc.) of the staff is appropriate for the achievement of the intended learning outcomes.

Staff involved with teaching is qualified and competent to do so.

Transparent procedures are in place for the recruitment and development of staff.

[ESG 1.5]

Description

Staff at UNDIKSHA is employed as civil servants or as contract lecturers. The implementation of recruitment and selection is carried out at university level concerning the two positions, via the recruitment of civil servant lecturers (following national regulations) and the institute's local recruitment system for contract lecturers. According to information in the SER, the lecturer recruitment planning is initiated by an analysis of the needs of each study programme. It is described that the Study Programme Coordinator together with the Head of the Department conducts an analysis of the adequacy of lecturer resources by calculating the ratio of the number of lecturers relative to the number of students and an analysis of the average teaching load per semester (full-time teaching equivalent). Lecturers have a minimum teaching hour obligation of 12-Credit Hours, according to the SER.

It is stated that new lecturers will be given 90 hours of training, providing training to young lecturers in the field of pedagogic improvement and how to utilize existing technology in the learning process (PEKERTI). There is also a continuation of this training programme targeting senior lecturers (AA).

The Science Education Bachelor's programme has 12 lecturers, three of them full professors.
The Science Education Master's programme has 7 lecturers, two of them full professors.
There is also academic staff like laboratory assistants available for the programmes.

Experts' evaluation

Overall, the panel of experts concludes that the amount of teaching staff fits the size of the student body. The university provided a full list of all teaching staff involved in the programme, including their academic qualification, their research and other relevant qualifications. In the experts' opinion, the university teaching staff is sufficiently or even highly qualified with regards to the intended learning outcomes of the programme.

The overall workload for staff (teaching, research, administration) seems to be quite high, but nonetheless appropriate for the delivery of the programme.

The university defined a concept for staff development. The internationalisation of the programmes should be strengthened as mentioned above by fostering the exchange of staff and by supporting the use of the English language. More guest lecturers from the region and beyond should be invited.

Conclusion

The criterion is fulfilled.

6. Learning resources and student support

Bachelor's/Master's degree
Appropriate facilities and resources are available for learning and teaching activities.
Guidance and support is available for students which includes advice on achieving a successful completion of their studies.
[ESG 1.6]

Description

Following the SER's description, in the beginning of the semester a Semester Study Plan (RPS) is handed out, that shall guide students concerning what to prepare and what to expect in the relevant courses and which learning outcomes are to be achieved. An orientation period is held at the beginning of studies. Every student is assigned an academic supervisor who shall provide guidance in academic and non-academic matters. In preparation for the thesis, the students are supposed to meet with an assigned thesis advisor several times.

Student services in all study programme include according to the SER academic assistance, guidance and counselling services, interest and talent services, soft skills coaching services, career and entrepreneurship guidance services, scholarship services, and health services.

Besides, the UNDIKSHA provides facilities such as libraries, sports fields, a health clinic, and a counselling service for the entire academic community. In order to support students' learning process and achievements, the university also provides several facilities, such as offices, standardized classrooms, and laboratories under the management of the faculties.

Teaching material is supposed to be published online using the university's integrated system (SIAK - Sistem Informasi Akademik).

A Student Careers and Entrepreneurship Center organizes job application letter writing training, interview answer training, entrepreneurship training, and a job fair.

Experts' evaluation

During the site visit, the experts learned that students at UNDIKSHA welcome and appreciate the familiar atmosphere at the faculty. Each Bachelor's student at UNDIKSHA has an academic advisor who has a role in directing students' academic and non-academic progress, advising on how many credits can be taken in the next semester, providing guidance on the topic of the final thesis, and facilitating requests to change study programmes. Postgraduate students also have academic advisors with similar responsibilities. The close relationship between academic advisors and students at UNDIKSHA was evident for the panel of experts and reflects the parental dynamic that is common in Indonesia. This bond can help keep students motivated and on track with their academic progress, enabling them to achieve their goals and complete their studies on time. Furthermore, students can confide in their academic advisors about any personal issues that may affect their academic performance. However, the panel of experts wishes to point out that the parental dynamic between academic advisors and students should not hinder students to develop independent personalities. The experts see the *Tri Hita Karana Philosophy* as positive as it supports the development of students' personalities.

In the experts' opinion, based on publicly available information, UNDIKSHA has implemented an integrated academic information system called SIAK (Sistem Informasi Akademik), which serves as a central platform for managing academic-related tasks such as registration, grading, and course scheduling. SIAK also provides access to academic-related information such as student transcripts, course schedules, and academic calendars.

UNDIKSHA has a library information system called E-Library, which allows students and staff to access digital resources such as e-books, online journals, and research databases. The E-Library system is accessible both on-campus and off-campus and provides a wide range of resources to support teaching, learning, and research activities. Additionally, there is an E-Journal that provides access to online journals that can be used by students to find references. The resources provided by the lecturers and by the library seem to be feasible to finish the study programme. The use of online literature and databases is of high importance. Therefore, the experts advice to improve the availability of databases and online resources even further **(Finding 17)**.

The panel of experts wishes to support UNDIKSHA's efforts to enhance the internationalisation of the study programmes. Part of an internationalisation strategy should increase the number of students who study abroad or in other national facilities for a part of their programme. Therefore, the experts would encourage that the academic advisor and faculty provide information on how to study abroad and about the recognition process (see above).

During the site visit of UNDIKSHA, the panel of experts was informed there are no students with special needs inscribed in the programmes. Nevertheless, this situation can change easily and in this case the panel has to conclude that the support for students with special needs is not yet well established at the university. For instance, the experts took note that some of the facilities do not provide mobility constructions for non-walkers or provide special instructions for blind students. While the panel of experts understand that it may be hard to change existing infrastructure, the experts strongly advice to develop a concept regarding students with special needs (see Finding 4).

The experts learned that the kind of exam that is needed to finish the courses successfully will be announced to students in the first week of the semester. As stated above, the academic advisors support students with their ongoing studies and learning outcome, including advice on the workload they should take and courses

they can take. However, the panel of experts took note that the module descriptions do not seem to be precise enough. For the students' benefit, the module descriptions must clearly state, which competences will be achieved as an outcome of the course (see Finding 8).

As explicitly mentioned above, the laboratory situation does not fulfil the standards which should be expected in natural sciences (see Chapter 1). This has an impact on the fulfilment of the criterion.

Conclusion

The criterion is not fulfilled.

7. Information

Bachelor's/Master's degree
Impartial and objective, up-to-date information regarding the programme and its qualifications is published regularly. This published information is appropriate for and available to relevant stakeholders.
[ESG 1.8]

Description

The responsible unit for public information at the university is UPT TIK. According to the SER, the unit has developed various information systems and applications, including the academic information system, UNDIKSHA E-library, E-Learning, E-Journal, information management system of community service programme, and information management system of a pre-service teacher. Those can be accessed through the SSO portal called E-Ganesha. In addition, to optimize IS/IT services, UPT TIK also develops UNDIKSHA Mobile Applications based on Android and iOS. The IS continues to be developed and refined to support UNDIKSHA's business processes. Following the existing master plan, UPT TIK continues to expand its services.

The students can access information on the university's website. The faculty also has its own website that provides information to students. At the study programme level, it is said that social media networks are used to strengthen communication.

The university also provides information on international cooperation on their publicly accessible website. Likewise, results of tracer studies can also be accessed online.

Experts' evaluation

There is an E-learning portal that can be used by the lecturers and students in conducting the learning process. Integrated E-learning can be used as a place for academic matter from distributing materials, assignments, or even online tests to provide complete experiences for online learning for the students.

There are many online information systems on the campus website that can help campus members and the public to find anything they want to know about UNDIKSHA. The website is also complete with information about all the achievements of the campus, the lecturers, and students on national and international scales, which can help the public to know more about UNDIKSHA. Overall, UNDIKSHA appears to have implemented several information systems to support various academic and administrative functions, which are essential for ensuring efficient and effective operations of the university.

There are some generally accepted standards for evaluating information systems, such as efficiency, effectiveness, usability, reliability, security, and scalability. Efficiency refers to how well the system can perform its functions in a timely and cost-effective manner. Effectiveness refers to how well the system meets the needs of its users and helps them achieve their goals. Usability refers to how easy it is for users to use the system

and perform tasks. Reliability refers to the system's ability to function consistently and accurately over time. Security refers to the measures in place to protect the system and its data from unauthorized access, theft, or damage. Scalability refers to the system's ability to adapt and grow as the needs of its users change over time. Overall, the experts confirm that UNDIKSHA's information Systems have reached good standards compared to international requirements.

During the site visit, the experts learned that the coordination for updating information on the website is facilitated through a WhatsApp group. The group comprises individuals responsible for creating and managing the website, as well as management personnel from various departments within the university. The group serves as a controlling system, with update requests and submissions made through it. The person in charge (PIC) is responsible for informing the group once the updates have been completed.

Nonetheless, the experts suggest the following points to be reflected:

The website of each study programme should provide a comprehensive list of all courses offered **(Finding 18)**. The experts are convinced that this will assist senior high school students as well as interested international students in making informed decisions when selecting their preferred study programme. By having access to a list of courses offered in each programme, students can make informed decisions about which programme is best suited for their needs.

UNDIKSHA should review its website to ensure that all information is relevant for admission is publicly accessible (see above).

Overall, the experts found that the programmes' websites in English language provide only general information on the study programmes. However, it should be ensured that all programmes provide the same and complete information, e.g. by developing a concept with a cohesive structure and guidelines providing core information for each programme **(Finding 19)**.

Additionally, the panel of experts thinks it would be beneficial if all of UNDIKSHA's local, national, and international achievements are automatically displayed on the website's homepage whenever someone accesses it. This would allow the university's selling points to be directly showcased on the website, giving visitors a better understanding of UNDIKSHA's achievements and strengths.

Conclusion

The criterion is fulfilled.

V. Recommendation of the panel of experts

The panel of experts recommends accrediting the study programme **"Science Education"** (Bachelor of Education) offered by Universitas Pendidikan Ganesha with conditions.

The panel of experts recommends accrediting the study **"Science Education"** (Master of Education) offered by Universitas Pendidikan Ganesha with conditions.

The panel of experts commends the University Pendidikan Ganesha for having very engaged management, staff and students. This will be a profound basis for the ambitious future development of the programmes. UNDIKSHA is very well interconnected in the region and provides graduates that are needed and welcome, both in the educational and business sector. The experts saw potential for unique selling points to improve the visibility and attractiveness of the university – all to attract students, funding and cooperation partners. The panel commends the programmes for their orientation on locally relevant science, e.g. ethnoscience.

Findings:

1. For all study programmes, an analysis to review if a **sufficient number and types of equipment** are available in its labs must be conducted. Because some changes might not be possible at short notice, the experts request that a strategic plan (including action plan) is developed to improve the laboratory infrastructure.
2. For all study programmes, UNDIKSHA must develop a **concept regarding safety standards for risk prevention in the laboratories** with the following integral parts:
    a. Development and implementation of an appropriate **concept for handling and storage of risk chemicals**, including necessary support staff to ensure laboratory safety and management of chemicals.
    b. Implementation of the **teaching of laboratory safety** to students.
    c. The provision and stronger operation and control of **personal risk protection equipment**.
    d. A thorough **analysis of risks** in practical work in the laboratory **according to international standards**.
3. For the Bachelor's programme "Science Education", an additional focus on **teaching international curricula** should be included in the existing curriculum.
4. For the Bachelor's programme "Science Education", a concept must be handed in **how to include inclusive education and teaching for special needs students** in schools.
5. The **intended learning outcomes must be reflected** and in parts reformulated. As a consequence, the course descriptions must be revised in order to improve their competence orientation. Within this process of revision:
    a. the intended learning outcomes (ILOs) must be more focussed on the **core competencies**,
    b. the **exams** must be oriented on the competencies formulated in the ILOs,
    c. the **literature references** must be updated and
    d. specification of the details for **midterm and final assessments** have to be described.
6. **Feedback from external and internal stakeholders** should be collected in a more structured and regular way.

7. The Faculty should explore options for **increased networking between the different programmes** on the faculty level to explore synergies for the study programmes.
8. The **internationalisation of all study programmes** should be strengthened, e.g., by
    a. fostering the exchange of staff and students with **learning agreements**.
    b. supporting the **use of the English language**.
    c. inviting **guest lecturers** from the region and beyond.
9. UNDIKSHA should **close the feedback loop** by consistently sharing survey results and QM results with all stakeholders.
10. The **workload of lecturers and students** should be measured separately and regularly to identify areas where the workload can be improved and balanced for both parties.
11. The Faculty should continue to **track the student cohorts' progress** and should include collecting data on how long the average and actual time to successfully finishing the study programme is.
12. For the Bachelor's programme, a **regulation that sets a time and/or page limit for the final thesis** should be introduced in order to monitor the workload related to it.
13. The Faculty should **monitor the outcomes of the exams** in its programmes regularly and closely.
14. A **review of the admission regulations** should be conducted. Next to clearly defined and publicly accessible regulations for admission, the regulations should implement competence-based criteria for admission. Attention should be paid to two points in particular:
    a. The admission process should include potential students suffering from colour-blindness.
    b. The medical check should be revisited.
15. For all study programmes in this cluster the **regulations for recognition of achievements of students at foreign universities** must be described transparently. A system to converse and recognize credits (e.g. SKS into ECTS) in a structured manner must be implemented.
16. The **Diploma Supplement** provided for the study programmes should comply with international standards and a Transcript of Records should be provided to the students.
17. The **availability of databases and online resources** for the research of students and teaching staff should be expanded even further**.**
18. The website of each study programme should provide a **comprehensive list of all courses** offered.
19. A concept should be provided with a cohesive structure and guidelines which **core information for each programme are provided** on the website to increase the comparability and transparency for the stakeholders.