



AGENTUR FÜR
QUALITÄTSSICHERUNG DURCH
AKKREDITIERUNG VON
STUDIENGÄNGEN E.V.

FINAL REPORT

UNIVERSITY OF CAPE COAST CAPE COAST, GHANA

INTEGRATED COASTAL ZONE MANAGEMENT (MASTER OF PHILOSOPHY)

INTEGRATED COASTAL ZONE MANAGEMENT (PHD)

FISHERIES SCIENCE (MASTER OF PHILOSOPHY)

FISHERIES SCIENCE (PHD)

April 2023



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DECISION OF THE AQAS STANDING COMMISSION

- “INTEGRATED COASTAL ZONE MANAGEMENT” (MASTER OF PHILOSOPHY)
- “INTEGRATED COASTAL ZONE MANAGEMENT” (PHD)
- “FISHERIES SCIENCE” (MASTER OF PHILOSOPHY)
- “FISHERIES SCIENCE” (PHD)

OFFERED BY UNIVERSITY OF CAPE COAST, CAPE COAST, GHANA

Based on the report of the expert panel, the comments by the university and the discussions of the AQAS Standing Commission in its 16th meeting on 27 February 2023, and the circulation procedure of 6 April 2023, the AQAS Standing Commission decides:

1. The study programmes “Integrated Coastal Zone Management” (Master of Philosophy), “Integrated Coastal Zone Management” (PhD), “Fisheries Science” (Master of Philosophy), and “Fisheries Science” (PhD) offered by **University of Cape Coast, Ghana** are accredited according to the AQAS Criteria for Programme Accreditation (Bachelor/Master) and the AQAS Criteria for Doctoral Programme Accreditation (PhD).

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 April 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 April 2029**.

Conditions:

For all study programmes

1. ACECoR must hand in additional documents which describe transparently which labs will be included in the new building, which number of students can work in the labs and which kind of equipment will be provided that is relevant for the research activities of Master’s and PhD students. A table with allows a comparison between the labs in the old and the new building muss be handed in.
2. The functionality of the labs must be improved at short notice by making the lab equipment available for the students and by implementing appropriate safety protocol/standards as soon as possible.
3. To close the feedback loop of the QA procedures the communication of review outcomes and actions taken must be improved. At least, the aggregated results must be made accessible for students and externals.

For both Master's programmes

4. The study handbooks must be revised:
 - a. The intended learning outcomes (ILOs) in the course descriptions must be revised to become more precise and explicit.
 - b. The references in the course descriptions must be updated with more recent literature.
 - c. The course descriptions must be checked for completeness (including lecturers) and gaps must be filled.

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

For all study programmes:

1. A transparent conversion system which allows the alignment of its credit (e.g. ECTS), grading and certification system to that of other institutions should be developed and disclosed.
2. A clear concept for the internship (target, duration and interlinkage with research project) should be handed in. Efforts should be strengthened to build contacts with fisheries industries and other application fields in Ghana.
3. The Centre should include students in its management processes more explicitly and improve the accessibility of information for them.
4. UCC should make its procedures safeguarding academic integrity more transparent and visible.
5. ACECoR should regularly and systematically monitor its graduates and use the results for the improvement of its programmes.
6. ACECoR should reconsider the concept of its research course and describe transparently in the course handbook that aspects of qualitative and quantitative research are included.
7. Information on the number of applicants in previous round, the number of open positions per discipline as well as minimum language requirements should be published for future applicants.
8. ACECoR should monitor the workload of its students continuously, e.g. by including this aspect in the student surveys.
9. Graduates should receive a diploma supplement or other documentation explaining their qualification more transparently.
10. ACECoR should ensure that information on teaching staff is kept up to date. The study programmes should be able to present CVs for all lecturers and have a complete list of teaching hours for its teaching staff.
11. UCC should monitor the workload of its staff members regularly and adjust it accordingly.

For both Master's study programmes:

12. It is recommended to introduce Portfolio as a new and motivating examination form where appropriate.
13. The duration of internships should be extended to at least two months.
14. The flexibility of the curriculum structure should be strengthened to allow students to select specific courses or to extend the internship.

For the Master's programme "Integrated Coastal Zone Management":

15. The programme should be checked for redundancies in the schedule, specifically Module 6 (Academic writing), Module 8 (Research methods in Integrated Coastal Zone management) and Module 10 (Current research and Communication in Integrated Coastal Management).
16. Students should be better qualified in the use of mapping tools, e.g., GIS software. The course “Research methods in ICZM” which precedes the internship should be revised accordingly.

For the Master’s programme “Fisheries Science”:

17. The admission criteria should be clarified regarding the study background of the students and the criteria should be described in a competence-oriented way.
18. Modul 2 (Malacology) should include more species and be renamed. Alternatively, one should integrate a new module on Marine Biodiversity in a specific module in the context of an ecosystem approach. The specific focus on the Ecosystem Approach to fisheries (EAF) should become an element in the study programme. Food web interactions and multispecies modelling approaches should also be integrated.

For both PhD programmes:

19. The guidelines on student support for the supervisor should be revised and easily accessible.
20. Measures should be taken to foster student mobility/conference attendance.
21. ACECoR should change its regulations so that the journal paper version of a PhD becomes the standard. The programmes should develop a strategy how they can increase the proportion of paper-based PhD thesis (cumulative rather than monographic).
22. Competencies in community and social level work should also be included in the curriculum and teaching.

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

EXPERTS' REPORT**ON THE STUDY PROGRAMMES**

- “INTEGRATED COASTAL ZONE MANAGEMENT” (MASTER OF PHILOSOPHY)
- “INTEGRATED COASTAL ZONE MANAGEMENT” (PHD)
- “FISHERIES SCIENCE” (MASTER OF PHILOSOPHY)
- “FISHERIES SCIENCE” (PHD)

OFFERED BY UNIVERSITY OF CAPE COAST, CAPE COAST, GHANA

Visit to the university: 22-25 November 2022

Panel of experts:

Prof. Dr. Matthias Wolff	University of Bremen, Faculty of Fisheries and Biology
PD Dr. Broder Breckling	University of Vechta, Faculty II: Natural and Social Sciences
Dr. Offei (Bob) Manteaw	Founder and Senior Foresight Analyst, Foresight Planners Africa and Senior Research Fellow, University of Ghana (Labour Market Representative)
Juliane Lukas	Humboldt University Berlin (student expert)
Coordinator:	
Doris Herrmann	AQAS, Cologne, Germany
Maria Rentmeister	

1. 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.

2. Accreditation procedure

This report results from the external review of the degree programmes “Integrated Coastal Zone Management” (Master of Philosophy), “Integrated Coastal Zone Management” (PhD), “Fisheries Science” (Master of Philosophy), and “Fisheries Science” (PhD) offered by the University of Cape Coast, Ghana.

1. Criteria

Each programme is assessed against a set of criteria for accreditation developed by AQAS: the AQAS Criteria for Programme Accreditation (Bachelor/Master) and the AQAS Criteria for Doctoral Programme Accreditation (PhD). 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 January 2022. The university produced a Self-Evaluation Report (SER). In April 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/supervisors,
- 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 16 May 2022. The final version of the SER was handed in October 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 September 2022. AQAS informed the university about the members of the expert panel and the university did not raise any concerns against 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 22 - 25 November 2022. On site, the experts interviewed different stakeholders, e.g. the management of the higher education institution, the programme management, teaching 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 05 April 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 June 2023, AQAS published the report and the result of the accreditation as well as the names of the panel of experts.

3. General information on the university

The programmes to be accredited are hosted by the University of Cape Coast (UCC), a public university located in the Central region of Ghana. UCC was established in 1962 and became a full-fledged university with the right to confer degrees nine years later, in 1971. Although UCC began as a training institute for secondary school teachers in Ghana, it soon widened its focus, according to the self-evaluation report, and offers education for different professions.

UCC began with two departments (Arts and Science), which were developed into faculties in 1963. In 1964, UCC created the Faculty of Education and the Faculty Economics and Social Studies. In 1975, a third faculty (Faculty of Agriculture) was added. As of 2022, UCC has five Colleges, 17 Faculties/Schools, 89 academic departments, thirteen centres, three institutes, three units and one graduate school. The School of Graduates coordinates all graduate programmes at UCC. The SER outlines that the academic year 2002/2003 marked a change, and the Faculty of Science was restructured into the Schools of Physical Sciences and Biological Sciences. Nowadays, the School of Biological Sciences (SBS) is part of the College of Agriculture and Natural Sciences (CANS) at UCC. The SBS hosts six departments, including the Department of Fisheries and Aquatic Sciences (DFAS) and the Centre for Coastal Management (CCM). The Department focuses on providing education at the undergraduate and postgraduate level (MPhil and PhD). Its postgraduate programmes specialise in integrated coastal zone management, fisheries science, oceanography, and limnology and aquaculture.

The Centre for Coastal Management was set up in 2013 and in 2019, CCM was competitively selected to establish the Africa Centre of Excellence in Coastal Resilience (ACECoR). Therefore, ACECoR is the new image for CCM with the vision to become a Centre of Excellence in coastal management contributing to global efforts to safeguard healthy coastal ecosystems for sustained provision of goods and services. The Department and the Centre jointly host the programmes to be accredited.

The DFAS was selected as the African Union Centre of Excellence in 2019 for training in Marine Fisheries and Coastal Zones Management. Its status mandates the DFAS to provide capacity building for African Union member states on the technical, policy, and governance aspects of the management of Marine Fisheries and the Management of Coastal Zones within the sub-region.

As of February 2022, the Master's programmes "Integrated Coastal Zone Management" has 28 students, the Master's programme "Fisheries Science" has 16 students, the PhD programme "Integrated Coastal Zone Management" has 22 students and the PhD programme "Fisheries Science" has eight students.

4. Assessment of the study programmes

1. Quality of the curriculum / Aims and structure of the doctoral programme

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]

Doctoral 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 the achievement of the intended learning outcomes.

The academic level of graduates corresponds to the requirements of the appropriate level of the national qualifications framework or the European Qualifications Framework.

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

[ESG 1.2]

1.1 Integrated Coastal Zone Management (MPhil)

Description

The study programme is a two-year study programme with 60 credit points (CP). Given that over 40% of the subregion's GDP is generated from coastal and marine resources, UCC wants to use the advantage of being a seafront university to train human resources with expertise in vital coastal ecosystems. The SER outlines that these ecosystems face growing challenges such as pollution, erosion or declining livelihoods. Since human resource capacities in the region are currently lacking, ACECoR aims to fill this gap of human resources. The overall goal of the programme is to train middle and senior level manpower to address issues confronting the sector with emphasis on the principles and practice of integrated coastal zone management for sustainable development.

The programme's curriculum is based on four programme level intended learning outcomes, which cover the ability to conduct research in marine, brackish water and freshwater ecosystems with the aim to formulate policies (1), knowledge to advocate for the sustainable use, management, and conservation of marine and coastal resources (2), the skills to use techniques in Integrated Coastal Zone Management to assist coastal communities to improve their livelihood (3), and the ability to optimize national benefits from marine and coastal environments through the development of soft and hard skills in spatial planning, engineering, blue economy, and governance (4).

According to the Academic Policies and Regulation for Graduate Studies of UCC, a graduate (MPhil) student must complete a minimum of 15 credits and a maximum of 18 credits (comprising no more than five 3-credit courses or four 4-credit courses or six 3-credit courses) per semester. In total, a student must complete at least 30 credits and no more than 36 credit per academic year. On this basis, there are five 3-credit prescribed courses each semester for the MPhil Integrated Coastal Zone Management and the MPhil Fisheries and Aquatic Sciences at the Departmental level and an additional one 3-credit prescribed course per semester from the SGS.

While the first year includes courses, the second year is designed to carry out the students' thesis (24 CP in total) accompanied with two thesis seminars (3 CP each). The coursework in the first year includes six modules per semester (each module has 3 CP). In the first semester students will take modules in "Topics in Marine Ecology", "Coastal Zone Habitats and Processes", "Contemporary Global Ocean and Coastal Policy", "Social Research in Coastal Management", and "Coastal Resource Management". Additionally, a module for academic writing for graduate students is implemented in the curriculum. The second semester includes modules in "Coastal Management case studies", "Research Methods in Integrated Coastal Zone Management", "Project Appraisal", "Current research and Communication in Integrated Coastal Management", "Climate Change Mitigation and Adaptation in Coastal Communities", and an internship. Each module consists of several units with specific topics and has a total of 65h (differentiated in theoretical and practical hours).

Experts' evaluation

The intended learning outcomes (ILO) as described in the programme allow to achieve the desired qualifications for today's challenges in Integrated Coastal Zone Management. The panel of experts confirms that the ILO reflect both academic and labour market requirements. The programme course structure is broad, interdisciplinary and well balanced in terms of providing the knowledge base of coastal habitats and processes on

one hand as well as the challenges for management and policy. It also includes the needed hand-on courses and practical work to obtain and improve methodological skills for Integrated Coastal Zone Management and its scientific analysis, review, and reporting.

When comparing the ICZM MPhil with similar programmes in Europe (e.g., IMBRSea at the University of Ghent; ISATEC at the University of Bremen; Marine Environment and Resources at the University of Southampton), the panel of experts confirms that the programme appears at a comparative level regarding learning outcomes and course structure. The thesis examples that were provided during the site visit confirm a general high qualitative standard and the use of up-to-date research methods including statistical analysis.

As mentioned above, the curriculum covers a wide range of subject-specific and cross-subject knowledge. It is oriented towards a systemic understanding of the coastal zone and the training in the use of modern research techniques. It is one of the rare programmes that appears to deal with social science and natural science aspects in a balanced way. The panel of experts commends that the programme also admits students with a pure social science background. The other abovementioned programmes are more restrictive in this regard and rather focus on students with a natural science background.

The curricular elements are documented in a handbook for students. In general, course contents and desired learning outcomes are described but should be more transparent. The courses/modules have very general descriptions and lack further specific details. Moreover, based on the provided documents, the panel of experts concludes that the learning outcome in some courses must be moderated to feasible aspiration levels (**Finding 1a**). For example, the experts consider it unrealistic to expect that students will be able to achieve all ILO within the given amount of time. For example, the experts refer to unit 1.4 which states that students will be able to “determine structural taxonomic diversity of the marine ecosystem”, to “assess the marine ecosystem”, as well as “use laboratory and field techniques and use molecular methods in studying various organisms” after only four contact hours. Another example is unit 8.4 that states an extremely wide area of approaches to use of GIS/RS software packages after only seven contact hours. Without delimitation, expectations by incoming students would be likely to become unrealistic or require practically unfeasible effort.

Additionally, the panel of experts points out that some courses lack the reading list. Reading lists should be included in all courses. Some courses provide relatively old literature as reading materials. The study programme must update the list with more recent literature (**Finding 1b**). Furthermore, it must be included in the course catalogue which lecturer is assigned to co-ordinate the internship module (**Finding 1c**).

A revision of the course descriptions in the study handbook with regard to the mentioned topics for clarification must take place to improve its usefulness for the students (Finding 1a, b, c). Especially the intended learning outcomes must be more specified and detailed in the descriptions to improve the transparency for students.

While the course portfolio is impressive in terms of the different topics covered, the question arose as to whether some redundancies are in the programme, such as between courses of Module 6 (Academic writing), Module 8 (Research methods in Integrated Coastal Zone management) and Module 10 (Current research and Communication in Integrated Coastal Management). The panel of experts therefore recommends that the programme should be checked for redundancies (**Finding 2**).

The panel of experts further suggests to introduce Portfolio as a new and motivating examination form in addition to the already available options, partly replacing written exams where appropriate (**Finding 3**). This examination type allows to let students elaborate a number of pre-defined tasks including (multi-)media work and diverse presentation formats.

With regard to the student’s workload, the semester course plan seems adequate: each semester lasts for 12 weeks and has 6 modules that are comprised of several courses. Since each module has 65 contact hours, all 6 modules provide 390 contact hours spread over 12 weeks, which results in 32.5 contact hours/week or

6.5 hours/day. UCC should provide a table which compares the national credit system with the European credit system (ECTS), so that students who would like to go abroad can easily compare the credits gained in both systems (**Finding 4**).

As was explained during the site visit, the programme is prepared for online and distance education, which has been successfully practiced during the COVID pandemic years 2020 and 2021. However, bottleneck situations have occurred frequently when the internet was not working well.

Labour market orientation

The MPhil programme in Integrated Coastal Zone Management is the most interdisciplinary of the two Master's programme and it is well structured to cover diverse and relevant socio-industrial-specific themes and needs. The nature of the different courses gives clear indication that learning outcomes are to have labour market relevance and evidence of this relevance is seen in the experiential learning/internship component of the programme. The panel of experts' interactions with staff, students, and labour market stakeholders indicated a level of focus, commitment, and effort to bring the requisite knowledge and expertise to the labour market by students and in ways that have fostered a very cordial relationship between the Centre and labour market stakeholders. Additionally, there is also evidence of conscious processes of feedback exchange from labour market partners and the Centre which is usually used to update and improve courses and the entire programme. There was evidence of how labour market needs expressed in feedbacks to the Centre has resulted in the creation of new industry-specific programme. Apart from the programme's strong and cordial relationship with labour market stakeholders, perhaps the most compelling indicator of learning outcome value is how many of the programme's graduating students either find employment with stakeholders or go on to create their own businesses. Evidence on this was given.

The inclusion of an internship in the second semester at a labour market partner is a very relevant part of the programme. Based on the evidence provided by the discussion with the labour market representatives and with the students, the panel of experts concludes that the interim period of just one month is considered too short. It should thus be explored if an extension of the internship to at least two months, if possible three months, can be implemented (**Finding 5**). This is already described for Module 12 (Internship), where it says, "students will spend at least 2 months as interns." Since it is probable that several students may go back to the host of their internship at a later stage (when conducting their thesis work or after graduation), an extended internship period may result in a more efficient linkage between the university and the private sector, allowing (at least some of) the students to plan for their future work after graduation in their first year of study already. A two-months-long internship in the second semester may require that other courses have to be shortened in time, or that part of the internship is done during the semester break period.

Based on the discussions held with the representatives of the private sector during the site visit, it appears that the students are generally considered well-skilled for doing their internship. However, it was pointed out to the experts that students should be better qualified in the use of mapping tools, e.g., GIS software. Since the course on "Research methods in ICZM" precedes the internship, the panel of experts recommends that this course should be revised accordingly (**Finding 6**). It should be clarified in what way the course "Research methods in ICZM" (and other subsequent courses) are structured to help in preparation of students for the internship. The panel of experts recommends that internship preparation should be made more explicit and that the module descriptions are revised accordingly (see Finding 1).

Conclusion

The criterion is partially fulfilled.

a. Integrated Coastal Zone Management (PhD)

The PhD programme “Integrated Coastal Zone Management” strives to build capacity in higher education on an intra-continental level. The SER outlines that training on higher academic levels were merely carried out outside Africa so far. Thus, the programme strives to enable students for continuous research and education for policy enactment to promote socioeconomic development in coastal areas of the sub-region.

The PhD programme is a three-year programme (90 CP) for candidates with a background in a research-based Master’s degree. Applicants coming from a taught Master’s degree programme are also admitted but, in consequence, the programme will be a four-year’s programme (120 CP). The overall goal of the programme is to train high-level professionals with the needed technical and scientific competencies to engage in research, extension, and training in Marine and Coastal Resources Management. The SER outlines five intended learning outcomes on the programme level. Graduates of the programme will be enabled to provide technical advice to government and coastal-related industries (1); will be able to give technical assistance to support the enforcement of regulations at all levels of coastal management (2); can offer evidence-based solutions to help sustain the social and economic assets of coastal areas (3); will engage in teaching, research, and extension in coastal resources management (4); and will provide continuous capacity development opportunities to meet the staff needs of higher education in the sub-region (5).

Based on these foundations, the Centre has designed a curriculum that includes two modules with three CP each in the first semester of the first year, and one internship (three CP) and another module (three CP) in the second semester of the first year. In parallel to these modules, students will work on their thesis. The thesis writing process is accompanied by several thesis seminars (each with three CP), starting in the second year.

The sequence of the programme is such that after the first year, students have to pass the pre-proposal defence, followed by the proposal defence (after the second year). After having passed both defences, students will take graduate seminars. The final thesis of graduates can be submitted as a monograph or an article-based thesis according to the academic regulations. Also, students have to defend their thesis after the submission of their thesis.

Experts’ evaluation

Overall, the panel of experts concludes for the PhD programme of Integrated Coastal Zone Management that the desired qualifications to be achieved are clearly presented. The nature of the PhD programme as “research based” implies that the students mainly concentrate on their thesis work and on obtaining the eventually missing skills in scientific writing, data analysis, and statistics. The respective courses provided by the Department of Fisheries and Aquatic Sciences (DFAS) can be taken during the two semesters of the first year. At the end of the second year the thesis proposal needs to be presented and defended. In years 3 and 4, students need to present their research findings in seminars and in two conferences offered by the Faculty each year.

The curricular structure of the PhD programme is considered to be plausible as it allows the students to mainly concentrate on their thesis research but also provides access to courses relevant to improve on their research skills. Through repeated presentations of their research results in seminars and conferences, the panel of experts is convinced that continuous feedback is provided. However, based on the documents provided, the panel of experts concludes that the guidelines on how often the supervisor should meet with students should be clear to every student and easily accessible (**Finding 7**).

However, based on the documents provided, it does not become clear how the internship in semester 2 of the first year contributes to the PhD programme and if or how it may be extended as an opportunity for data gathering for the thesis work. Therefore, the panel of experts recommends that ACECoR develops a concept for internships for all programmes offered. It should provide a clear documentation on how the internship in

the second semester of the first year contributes to the PhD programme. It should also be clarified if and how it may be possible to extend the internship (**Finding 8**).

The SER provided states that students are required to submit quarterly progress reports to the Department through their supervisors, to ensure that their progress is in line with their research plans and that any challenges can be addressed accordingly. The documents further state that weekly seminars are also organized to provide the platform for students to present the progress of their work to faculty and other students for comments and inputs into their research work.

While participation in conferences is encouraged by the supervisors (and some funds are available), students remarked during the site visit that the opportunity for a conference participation is often not taken due to the narrow time window given for their PhD thesis period. The panel of experts considers it important to find ways to further foster student mobility/conference attendance, possibly through incentives such as the provision of extra certificates given out by the university or by granting an additional month of stipend prolongation (**Finding 9**).

Overall, the panel of experts confirms that the academic level of the PhD graduates appears comparable with those from European universities as judged by the thesis examples looked at during the site visit and the peer-reviewed papers written by the PhD students and their supervisors.

Labour market orientation

The PhD holders find a large labour market, up to now mainly inside academia (based on the provided alumni tracking list). Some of the PhD graduates are recruited as lecturers within the Department of Fisheries and Aquatic Sciences (DFAS) at the UCC, others become senior research fellows at other institutions in Ghana, conduct a Postdoctoral internship, or find a job in the industry or in governmental institutions. While the provided alumni tracer study of DFAS shows a wide spectrum of working opportunities for graduates, it is not clear if those job holders shown in the table are Master or PhD graduates. Because the programmes are relatively new only one tracer study could be carried out by the centre so far. The panel of experts encourages ACECoR to continue collecting data and information on its graduates (see below). The results can also be used for attracting students and to inform the public.

The PhD programme is strong and has labour market relevance; however, it is also clear that the level of expertise of PhD graduates is yet to be fully leveraged by the labour market and this is because most of the fisheries and coastal management industries are not for profit and are largely research-based. That said, it is also very evident from tracer records that graduates are playing leading and significant roles in research and knowledge-related portions of the labour market. This also provides sufficient evidence of the appropriateness of the training outcomes and the potential for graduates to play more leading roles once the coastal and fisheries industries advance in Ghana as a business. Apart from the programme's strong and cordial relationship with labour market stakeholders, perhaps the most compelling indicator of learning outcome value is how many of the programme's graduating students either find employment with stakeholders or go on to create their own businesses. That was pleasing to know and to see evidence of.

Conclusion

The criterion is fulfilled.

b. Fisheries Science (MPhil)

The Master's programme "Fisheries Science" is a two-year programme with 60 CP. According to the SER, the programme has been developed due to a decline of the fisheries sector in the region, although the sector contributes significantly to the gross domestic product of the countries in the region. In consequence, the Centre decided to develop a programme focusing on middle and high-level personnel with theoretical and practical knowledge in fisheries science. The programme outlines three intended learning outcomes on the programme level. Graduates of this programme will be able to demonstrate fisheries management capabilities (1); will be able to undertake independent research in fisheries science (2); and will have the capacity to train lower-level personnel in fisheries institutions on fishery data collection (3).

The programme's structure outlines that the students have to take 18 CP per semester in the first year and 15 CP in the second year. The first semester offers courses on "Ichthyology", "Malacology", "Advanced Fisheries Biology", "Fishing gears and techniques", "Fish Nutrition", and "Academic writing for graduate students". The second semester focuses on courses in "Fisheries Management", "Ghanaian fisheries", "Global fisheries and international treaties", "Current research and communication in fisheries science", "Climate change mitigation and adaptation in coastal communities", and an internship. All modules have several specific topic units (between three and five units). The documentation differentiates between theoretical and practical hours, the total unit hour, and the overall module hour. The latter is set to be 65 hours per course.

Experts' evaluation

Based on the intended learning outcomes (ILO) described in the programme, the panel of experts confirms that they lead to the achievement of the desired qualifications for today's challenges in Fisheries Science. However, the experts point out lacks for some course elements described below. The ILO reflect both academic and labour market requirements but they are not detailed enough to inform the student what can be achieved within the courses. The programme course structure is broad and well balanced in terms of providing the knowledge base of the biology/ecology of aquatic resources as well as the challenges and tools for stock assessment, management, and policy. It also includes the needed hand-on courses and practical work to obtain and improve methodological skills for fisheries science conduction and scientific reporting.

When comparing the Fisheries Science (MPhil) with similar programmes in Europe (Applied Marine and Fisheries Ecology MSc at University of Aberdeen; Wildlife and Fisheries Biology (MS) at Clemson University; International Master in Sustainable Fisheries at the University of Alicante, Spain; ISATEC at the University of Bremen; Marine Environment and Resources at the University of Southampton) the programme appears at an overall comparative level with regard to learning outcomes and course structure. The thesis examples that were provided during the site visit confirm a general high qualitative standard and the use of up-to-date research methods including statistical analysis.

The curriculum covers a wide range of subject-specific and cross-subject knowledge elements. It is oriented towards an understanding of the biology, evolution, distribution, use, assessment, and management of aquatic resources and provides training in the use of modern research techniques. It admits students with a B.Sc. background in biological sciences or "related fields". It should be further explained what "related fields" means and if a B.Sc. holder in any Social Science Discipline should also be admitted (**Finding 10**).

As was explained during the site visit, the programme is prepared for online and distance education, which has been successfully practiced during the COVID pandemic years 2020 and 2021. However, bottleneck situations have occurred frequently when the internet was not working well.

The curricular elements are documented in a handbook for students. Each module consists of several units with specific topics, is comprised of 65 contact hours and provides 3 CP. In general, course contents and

desired learning outcomes are well described. However, based on the provided documents, the panel of experts points out that many courses lack the reading list. Moreover, Module 6 (Academic writing) lacks the description of any further details. The reading list of some courses only provide comparatively old literature sources as reading material. Accordingly, an update of the course literature is needed. It is therefore recommended that the study programme should update the list with more recent literature. A revision of the course descriptions in the study handbook regarding the above-mentioned topics is requested to create transparency for students (**see Finding 1a-c**). As an additional detail, the experts found that Module 11 (Climate Change Mitigation and Adaptation in Coastal Communities) lacks the lecturer and unit specification in the provided documentation.

While the course portfolio is impressive in terms of the wide range of different topics covered, it appears that some crucial elements are lacking. The Module 2 (Malacology) focusses on mollusks (mainly on bivalve species), while many other commercial relevant invertebrate species such as shrimps and prawns, lobsters, crabs, sea cucumbers and others are not dealt with. The panel of experts advises to include those groups and, if possible, to rename the Module 2 to “Aquatic invertebrates”. Alternatively, one should integrate a new module on Marine Biodiversity (further diversity of marine biota and fished resources) in a separate module in the context of an ecosystem approach (with proportionate shortening of other parts in order to maintain the overall time frame) (**Finding 11**). The experts also conclude that the specific focus on the Ecosystem Approach to fisheries (EAF), which is the currently followed paradigm in fisheries research and management, is missing as an element in the study programme. In this context, food web interactions and multispecies modelling approaches (e.g. Trophic System Modeling, Multispecies Virtual Population Analysis) are not part of the programme portfolio yet (or are at least not visible to the reader). These topics should be integrated in the study programme. For example, these topics could be integrated in Module 7 (Fisheries Management) or/and in Module 10 (Current research and Communication in Fisheries Science). These topics would require not only the teaching on this subject but also the training in the use of relevant software such as Ecopath with Ecosim.

With regard to the student’s workload, the semester course plan seems adequate as each semester lasts for 12 weeks and has 6 Modules that are comprised of several courses. Since each module has 65 contact hours, all 6 modules provide 390 contact hours spread over 12 weeks, which results in 32.5 contact hours/week or 6.5 hours/day. This number of contact hours seems adequate, considering the substantial number of hours to be added for home study by the students. A table which allows the comparison of the national credit system with the ECTS system which is used in Europe should be provided (see Finding 4).

The panel of experts further suggests to introduce Portfolio as a new and motivating examination form in addition to the already available options, partly replacing written exams where appropriate (see Finding 3). This examination type allows to let students elaborate a number of pre-defined tasks including (multi-)media work and diverse presentation formats.

Labour market orientation

The panel of experts confirms that the inclusion of an internship in the second semester at a labour market partner is a very relevant part of the programme. During the site visit’s meeting with representatives of the labour market, they confirmed a very close and beneficial cooperation between the students and the different labour market representatives. The panel of experts can confirm a well-established link between the university and the private sector. Based on the evidence provided in the discussion with the labour market representatives and students, the panel of experts concludes that the interim period of just one month is considered too short. It should thus be explored if an extension of the internship to at least two months, if possible three months, can be implemented (see Finding 5). This is already described for Module 12 (Internship), where it says, “students will spend at least 2 months as interns.” Since it is probable that several students may go back to the host of their internship at a later stage (when conducting their thesis work or after graduation), an

extended internship period may result in a more efficient linkage between the university and the private sector, allowing (at least some of) the students to plan for their future work after graduation in their first study year already. A two-months-long internship in the second semester may require that other courses are shortened in time, or that part of the internship is done during the semester break period. Based on the discussions held with the private sector during the site visit, it appears that the students are generally considered well-skilled for doing their internship. Furthermore, the course catalogue is incomplete without an assignment of a responsible lecturer who co-ordinates the above-stated module (see Finding 1c).

The fisheries programme provides very interesting and exciting prospects on the labour market. However, the technical nature of the programme makes it a lot more specialist-oriented and with few in-between labour market opportunities. That said, most of the graduates function as either technical or specialist researchers with some also acting as policy and practice advisors for government and other entities such as NGOs. In all instances, however, the culture of collaboration between the Centre and labour market partners opens up clear avenues for evaluation and feedback which informs programme improvement and development.

Apart from the programme's strong and cordial relationship with labour market stakeholders, perhaps the most compelling indicator of learning outcome value is how many of the programme's graduating students either find employment with stakeholders or go on to create their own businesses. That was pleasing to know and to see evidence of.

Conclusion

The criterion is partially fulfilled.

1.4 Fisheries Science (PhD)

The PhD programme "Fisheries Science" is designed to be a three-year research programme for candidates with a research-based Master's degree and a four-year programme for graduates coming from a taught Master's programme. The rationale for the programme is, according to the SER, to counteract the downward trend in world's marine fisheries. The Centre outlines that a need of high qualified staff in the West African sub-region in the discipline is needed, but very few institutions offer training in the areas of fisheries. The Centre strives to fill this gap on the higher education landscape in the region. It is said in the SER that the PhD programme is designed to follow demand-driven based and problem-based learning approaches. The Centre opted, thus, to integrate an internship in the curriculum.

The programme includes three intended learning outcomes on the programme level. According to the SER, the PhD programme will produce highly skilled personnel to address issues in the fisheries sector (1); will produce high-level personnel capable of creating and disseminating relevant knowledge to promote the sector (2); and will train personnel capable of facilitating policy formulation to support growth of the sector (3). The programme's structure includes a module in academic writing and another module in the first semester of the first year, and the internship and a second module in the second semester of the first year.

The sequence of the programme is such that after the first year, students have to pass the pre-proposal defence, followed by the proposal defence (after the second year). After having passed both defences, students will take graduate seminars. The final thesis of graduates can be submitted as a monograph or an article-based thesis according to the academic regulations. Also, students have to defend their thesis after its submission.

Experts' evaluation

The desired qualifications to be achieved for the doctoral degree in Fisheries Science are clearly presented. The nature of the PhD programme as “research-based” implies that the students mainly concentrate on their thesis work and on obtaining possible missing skills in scientific writing, data analysis, and statistics. The respective courses provided by the DFAS can be taken during the two semesters of the first year. At the end of the second year the thesis proposal needs to be presented and defended. In years 3 and 4, students need to present their research findings in seminars and in two conferences offered by the Faculty each year.

The curricular structure of the PhD programme makes sense as it allows the students to mainly concentrate on their thesis research but also provides access to courses relevant to improve their research skills. Through repeated presentations of their research results in seminars and conferences, the panel of experts is convinced that continuous feedback is provided. Overall, the general structure of the PhD programme is adequate and follows international standards of PhD programmes.

The panel of experts confirm that the general curriculum appears adequate and that there is a quarterly reporting of thesis progress. However, the experts conclude that it is not well documented how the interaction between students and supervisors is organized. Therefore, the panel of experts concludes that the guidelines on how often the supervisor should meet with students should be clear to every student and easily accessible (see Finding 7).

Overall, the panel of experts confirms that the academic level of the PhD graduates appears comparable with those from European universities as judged by the thesis examples looked at during the site visit and the peer-reviewed papers written by the PhD students and their supervisors.

Labour market orientation

However, based on the documents provided, it does not become clear how the internship in the second semester of the first year contributes to the PhD programme and if or how it may be extended as an opportunity for data gathering for the thesis work. The panel of experts therefore recommends that the programme should provide clear documentation on how the internship in the second semester of the first year contributes to the PhD programme (see Finding 8). It should also be clarified if and how it may be possible to extend the internship as an opportunity for data gathering for the thesis work.

Based on the documents provided and the meetings during the site visit, the PhD thesis may be done as monographs or as a collection of journal papers (two to be already published, one submitted at thesis submission) embedded in a framing text. While the latter is encouraged by the programme, the panel of experts learned that the former is the modality used more often. Based on the experts' experience, this comes as no surprise since the publishing process of journal articles may be too long a process to allow to conclude the PhD thesis within the given time frame. For the journal paper version of a PhD to become standard, supervisors will have to strongly encourage and support the students in their paper writing and need to periodically check the students' progress. The panel of experts recommends that the study programme should develop a strategy how it can increase the proportion of paper-based PhD thesis (cumulative rather than monographic) (**Finding 12**). Since both, the University and ACECoR, want the students to publish their research internationally (to become well visible in the scientific community), it should definitely be tried to increase the proportion of paper-based PhD thesis. Considering the tight time frame for the thesis, one option would be to first write a monograph already with a chapter structure and convert the chapters to papers once the thesis monograph has been submitted.

While participation in conferences is encouraged by the supervisors (and some funds are available), students remarked during the site visit that the opportunity for a conference participation is often not taken due to the narrow time window given for their PhD thesis period. The panel of experts considers it important to find ways

to further foster student mobility/conference attendance, possibly through incentives such as the provision of extra certificates given out by the university or by granting an additional month of stipend prolongation (see Finding 9).

The PhD holders find a large labour market, up to now mainly inside academia (see Alumni tracking list). Some of the PhD graduates are recruited as lecturers within the Department of Fisheries and Aquatic Sciences (DFAS) at the UCC, others become senior research fellows at other institutions in Ghana, conduct a Postdoctoral internship, or some find a job in the industry or in governmental institutions. While the provided alumni tracer study of DFAS shows a wide spectrum of working opportunities for graduates, it is not clear if those job holders shown in the table are Master or PhD graduates. The panel of experts encourages ACECoR to further collect data on its alumni.

As is the case with the MPhil programme, the Fisheries Science PhD programme is very technical and produces graduates with very specialized knowledge and skills. The lack, however, of industry-based opportunities may impede the ability and freedoms of graduates to find employment in fisheries-related industries. Most graduates, therefore, find it easier and a lot more convenient to work in academic and research-related organizations. Some also work as policy specialists and advisors. A tracer study, serving as a means for self-evaluation, and conducted by the Centre, indicated most of the PhD graduates eventually work in universities and research institutions, an indication of how limited their labour market prospects are.

Even though graduates perform creditably in their roles wherever they find themselves, there might be a target conflict in the aims of the programme. A PhD programme should contribute in a pronounced manner to the advancement of science and therefore, the training might narrowly focus on teaching and research. But as explained in the SER, this programme also intends that its graduates work in the fisheries industry. The learning outcomes somehow affirm the academic-oriented nature of the programme which irrespective of the lack of fisheries-related industries might limit the employment choices opened to graduates. Therefore, ACECoR should continuously monitor the success of its graduates on the labour market (see below).

Conclusion

The criterion is fulfilled.

3. Procedures for quality assurance

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]

Doctoral 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

The quality assurance for the programmes which are subject of this accreditation procedure adhere to a quality assurance policy issued by the internal unit “Directorate of Academic Planning and Quality Assurance” (DAPQA). The SER outlines that the quality assurance policy structures UCC’s quality assurance activities, starting with the responsibilities for the overall quality assurance of academic activities, the central administration, and subsequently the colleges, the schools and the departments. DAPQA is responsible for the overall quality assurance of academic activities, including the development of academic programmes, delivery, and assessment within UCC. Newly developed programmes are then reviewed and approved by the School of Graduate Studies, the Academic Board of UCC and the adjunct committees. Policies unique to the quality assurance of graduate studies are defined in UCC’s Graduate School Students’ Handbook.

The activities of the Department of Fisheries and Aquatic Sciences (DFAS) follow a strategic plan. The strategic plan for DFAS includes a SWOT analysis (focusing on capacity building, collaboration, research output, management, and human resources). Based on the SWOT analysis, the DFAS has drafted an activity plan for these aspects.

Whilst the central administration (together with the colleges and the schools) are responsible for the infrastructural resources, the DFAS takes over the day-to-day administrative tasks. This includes the supervision of teaching and learning, feedback from students and other stakeholders and the liaison with the central administration.

The programmes are evaluated every five years following the requirements of the university and the Ghana Tertiary Education Commission (GTEC). This process is initiated by the department and includes feedback from students, employers and other relevant stakeholders. The outcome of this evaluation is forwarded to the School for Graduate Studies and the College’s board. After the approval of the Academic Board, the GTEC assesses the programmes within the national accreditation framework.

The SER further outlines that UCC holds staff-student consultative meeting twice a year. This feedback includes administrative, teaching and learning feedback of students. In addition, DAPQA carries out course evaluations every semester. Tracer studies are also conducted periodically to assess the impact of the academic programmes and the performance of alumni. Stakeholder engagement is said to take place at various levels. It is described that in the past these engagements have led to new research areas such as blue economy, disaster-risk management, coastal engineering, and climate change.

The SER indicates that data collection covers the assessment outcomes, data on the adequacy of the admission criteria, credit loads, course evaluations, and student progression and success rates. The departmental board and other internal stakeholders carry out periodic review of course contents and credit load.

Experts’ evaluation

Based on the evidence provided in the SER and information gathered through interviews during the site visit, the experts note several positive aspects of UCC’s Quality Assurance (QA) policies and processes. For one, UCC is regularly undergoing internal quality assessments of its programmes and resources (by DAPQA) as well as regular national accreditations (by the National Accreditation Board of Ghana most recently in 2022). In addition, UCC is engaging in international benchmarking, for example against the Times Higher Education’s

performance indicators (ranking among the top 400 universities globally and 4th within the Africa continent most recently in 2022). Another positive aspect is the formalised involvement of representatives from the Alumni Association, staff, and the Students' Representative Council in the University Council. Furthermore, students can assess their courses through anonymised assessments (by DAPQA) every semester and bi-annual staff-student consultative meetings are open to all students to give input on administrative as well as teaching practices at the University.

The four post-graduate programmes under evaluation are embedded within the 2019-established Africa Centre of Excellence in Coastal Resilience (ACECoR). ACECoR was established under the World Bank Africa Centre of Excellence for Development Impact Project and is hosted by UCC's Centre for Coastal Management within the DFAS. Academically and administratively, ACECoR is managed by a Centre Director and a Deputy Director, who report directly to UCC's Vice Chancellor. As such, ACECoR – although responsible for its own strategic and implementation plans, fiduciary and M&E activities – adheres not only to UCC's statutes and QA procedures but is also subject to regional coordination through the African Association of Universities as well as consistently accountable before the World Bank's steering committees. Overall, the panel of experts can positively evaluate the current QA practices implemented at centre level. For one, ACECoR maintains an International Scientific Advisory Board as well as a Sectoral Advisory Board, through which it systematically seeks feedback from international research experts as well as relevant stakeholders within industry and society. Secondly, it was stated that a student representative regularly participates in the centre's staff meetings, although it remained unclear in which decision-making processes (e.g., evaluation of classes and teaching, recruitment of students and staff, operational affairs, conflict resolution) the student representative is involved in and to what extent. It should be described transparently how students are included in the core processes at the faculty and how their interests are included in decision taking (**Finding 13**).

Although QA processes at the centre are clearly defined and stakeholder involvement is formalised, the experts got the impression that it is unclear how relevant information are brought back to the relevant stakeholders. Further, also on university level, evidence accumulated that there is only a partial implementation of feedback loops within UCC's QA system. Specifically, the students seem not well informed about the survey and review outcomes as well as actions taken. The feedback loop must be closed (**Finding 14**). Much of this information is not uploaded online and the information available for students and externals, especially prospective students interested to apply, is limited. Positive to note, however, is the fact that ACECoR staff lives an open-door policy for students to address problems and challenges. Similarly, through informal discussions with students at the end of the semester, teaching staff often can get direct feedback on their classes and this way can likely compensate the missing central feedback for the further development of the programmes to a certain degree. The experts strongly urge for an increase in visibility of QA practices, and a timely communication of evaluation results (see above). Providing results timely and in an aggregated form suitable for dissemination among the involved stakeholders will likely also improve participation rates.

UCC is committed to academic integrity as a core value. For one, it has instituted a 'plagiarism software' at the beginning of the 2019/2020 academic year. However, it was not clear for the panel of experts how faculty and graduates are informed and educated on academic and research integrity. Thus, UCC should make its procedures safeguarding academic integrity more transparent and visible (**Finding 15**).

As explained above, some information on work placement of graduates from DFAS was provided. Nevertheless, it was stated that there are no regular and systematic processes for the monitoring of alumni. The panel of experts encourages ACECoR to systematically monitor its graduates because this is also relevant for the continuous adaption of the programmes (**Finding 16**). Ideally, not only their professional development is assessed, but also overall skills/competences, career progression as well as the ACECoR study programme(s), student services and facilities overall.

Conclusion

The criterion is partially fulfilled.

4. Learning, teaching and assessment of students / Learning and assessment of students

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]

Doctoral degree

The form of supervision and/or course structure is adequate and corresponds with the intended learning outcomes.

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]

3.1 Master's programmes

Description

The Master's programmes run, according to the SER, as modular programmes with a priority on learner-centred approaches. Also, it is outlined that andragogic approaches (e.g., Edgar Dale's cone of learning) and an assessment strategy following the Bloom's taxonomy on level 4, 5 and 6 is applied in the programmes. The Department includes a multi-delivery approach for the programmes including face-to-face lecturers, virtual lectures, e-learning via a Moodle platform, laboratory practical work, field work, discussions, seminars and presentations, group discussions, article reviews, and assignments. The SER states that student-centred learning is a central element in the teaching philosophy of the programmes, especially when it comes to seminars and final dissertations.

The modular setup of the programmes enables the ACECoR to teach the programme in a specialised manner without redundancies of content and overlaps. This is overseen by the timetable committee. The assessment of students takes place at the end of each module. Following the policy of the School of Biological Science, assessment in the first year can either be a term papers or essays or a combinations of term papers and a written end-of-module examination. The continuous assessment of students consists of term papers, paper reviews/critiques, and progress reports. While the continuous assessment sums up to 40% to the final, the end-of-module examination is 60%.

It is said that students file complaints, if needed, via the course evaluations at the end of the module. These complaints are either forwarded to the Directorate of Academic Planning and Quality Assurance (DPDEM) in case of infrastructural complaints or to the heads of departments/departmental board in case of programme-related issues.

The programmes' modules include several different examination types, including short answer questions, essays, assignments/term papers, oral presentations, practical fieldwork, and practical laboratory work. In addition, the SER clarifies that skill-based short courses are provided to students in addition to the regular courses to enable students to have certain skills and competencies, e.g., GIS and Remote Sensing, R-Programming software and alike. The short courses have a duration of one week and are non-examination based. The

examinations adhere to the Bloom's taxonomy covering the understanding of concepts and the application to real-life scenarios. The graduation thesis can be an article-based thesis. According to the regulations, Master's students have to present at least two published or accepted articles.

Experts' evaluation

On the whole, the two Master's programmes are very well designed and tailored to address a national need which has significant societal implications, especially for the location of the University of Cape Coast. The panel of experts considers UCC's description as a Sea-Front university as fair and accurate as the realities of coastal communities also become the realities of the university. As a response, the university has taken the right steps through the Centre to develop courses and programmes that are very responsive to current and future possible problems of coastal communities, not only in Ghana but also across the west African sub-region.

The teaching and learning environment are conducive and to a very large extent supportive of a student-centred learning environment. A mixed method approach of lectures, seminars, conferences, fieldwork, and internships is combined to define some if not all the learning outcomes which translates into the quality of their graduates. However, the meeting with students during the site visit revealed certain limitations which somehow make it difficult for students to enjoy the flexibility in course selection. While the programmes are varied and diverse, the modular system used by the Centre promotes concurrency which creates time limitations that impede students' abilities and freedoms to select certain courses of interest and desire (**Finding 17**). Likewise, the modular set up should allow students to extend their internships to allow for a longer experiential training with industry. The experts learned during the interactions with students that there are certain valuable and popular courses which they would want to take, e.g., GIS, Entrepreneurship, and a few others. However, the structure of course selection does not allow them to take such courses. ACECoR should try to rise the flexibility of the programme. One way could be to introduce a specific module which contains several courses from different areas of which the students might select.

That said, the overall teaching, learning and assessment methods are carefully considered and are responsive to the diversity of students and their needs. The Centre put in place several innovative practices that complement in class teaching and learning. For instance, investments in smart boards made it possible to combine in class teaching with online (virtual) learning experiences that connects classrooms to several external entities both in Ghana and beyond. Internships, field trips, and experiential learning are key components of the training processes which are also complemented by seminars and mentoring sessions that also provide additional help and motivation for students.

During the site visit, the panel of experts learned from the faculty that, even though the Centre has made significant resources available to support students' learning beyond the school, especially in international contexts, students do not take advantage of the numerous funding and resources opportunities that are available to them. This is in relation to funds for international travel and conference attendance. The panel of experts finds this revealing and worrying since such exposures are critical to the growth and development of students (cf. Finding 9). While several reasons could be possible for such challenges, it is very likely to be either a lack of information or the way information around funds availability and access are communicated. It could also be a lack of capacity and that students lack the confidence, capacity, and competence to take advantage of these resources. If students cannot confidently go on the international platform to present their works, then it might be because of certain reasons which the faculty and staff need to explore and address.

The faculty made a graduate students' handbook available in which policies relevant to students' studies and academic wellbeing were clearly spelt out. The handbook represents university policy on students' rights and responsibilities. Examination rules and grading schemes are clearly outlined. Such handbooks are given to

students at the commencement of their programme and are clarified in special orientation sessions that provide vital information to students. These types of information as contained in student handbooks and other associated orientations are helpful in creating transparency around issues such as examinations and gradings, as well as the overall conduct of academic activities. The value of these resources to students' wellbeing were confirmed by students during the experts' interactions with them to give the assurance that they are generally happy with access to information, especially as it relates to how examinations are organized. Overall, the panel of experts concludes that it became evident during the interactions with Master's students that they were generally happy in how studies and examinations are organized.

Mixed assessments approaches were used to establish students' competencies and abilities. Continuous assessments were combined with final examinations as the main assessment methods and were complemented by other indicators such as seminar presentations, project works, theses, and field work. These constitute what is known as continuous assessment and were all made known to students in advance either through the student's handbook or through engagements with faculty advisors and students' orientations sessions. The Centre is guided by the larger university policy which makes it possible for students to retake or resit examinations for different reasons. Students are also given the opportunity to use very well laid down procedures and processes to appeal unfavourable decisions, or to seek redress of any kind when necessary. These, as observed by the experts, are university-wide regulations and policies that guide teaching and learning in the Centre and to ensure that students are not disadvantaged in any way.

The most conspicuous observation during the on-site visit was how much the labour market representative know about the activities of ACECoR and how involved they are in the management of the labour market training of students. It was also indicative of the well-crafted relationship of equal partnership that existed between the Centre and its labour market stakeholders. There was no doubt that the Centre has a strong and close relationship with its labour market counterparts. It looked like a well nurtured relationship of mutuality. The Centre, as part of their training, liaised with the labour market by sending students out to them on internship and experiential or practical training. It is important, however, to note that because of the lack of largescale fisheries industries, most of the partners the panel of experts met were mainly non-governmental organizations working in research, advocacy, and coastal management issues. Only some of them were involved in production dealing with actual fishing and the production of fishing accessories. Apart from sending students out on internships with these partners, ACECoR has an in-house faculty who coordinates students' internships and labour market relationships. Through such arrangements, the labour market representatives are also allowed to participate in evaluation processes that eventually improve the training programme and processes. The panel of experts learned that there are not many fisheries industries in Ghana generally. Therefore, it has become problematic to effectively place students in the right places and to gain the requisite industry experiences. It seems that, in some respect, the internship is seen as an academic or graduation box that needs to be completed and ticked. Therefore, ACECoR and the department should develop a concept for internships which addresses the different areas of the labour market and work on a better placement of the students in places which correspond to their research interests (see Finding 8).

Conclusion

The criterion is fulfilled.

3.2 PhD programmes

Description

The ACECoR states that the Centre has a specific student research plan to monitor the progress of PhD students. Students are expected to submit progress reports quarterly. Weekly PhD seminars are designed to provide students a platform to present the progress of their work to the faculty and students for additional input. The School of Graduate Studies Academic policy include the assessment regulations for students, which is accessible for the students according to the SER. The assessment standards and criteria are set by the Board of Graduate Studies and approved by the Academic Board.

As well as for the Master's programmes, PhD students can either submit a monograph or an article-based thesis. According to the policy mentioned above, dissertations will be examined by internal and external assessors, and defended at a viva voce. The pass mark is 60% according to the examination regulations. Article-based PhD thesis must include at least three published or accepted articles.

Experts' evaluation

The two doctoral programmes under review provide the most flexible and targeted learning path for students in the Centre. Right at the beginning of the programme, students are assigned to specific supervisors who work with them to define their research needs and interests. This is essential because the PhD programme is approached as research-based and specialization oriented. It puts students very much in control of their learning and allows them to take full ownership of the pace and direction of their learning in the process. Students are allowed the freedom to select their own supervisors and as a result can work freely according to their unique needs and interests. The independent nature of the doctoral programme allows flexibility in learning approaches. Classes at the doctoral programme are not required; however, students are given the freedom to attend and audit classes or courses of interest across the campus.

Similar to the Master's programmes stated above, both doctoral programmes also provide several opportunities that allow students in principle to exchange and transfer knowledge both within and outside the programme, for example through seminars, internships, and research scholarships abroad. The panel of experts finds it worthy to mention that the Centre supports PhD students to participate fully in faculty projects and to gain significant project management experiences. Such opportunities also allow the creative interlacing of theory as learned in classrooms to practical issues of coastal and fisheries management.

Because traditional classes were not required for doctoral students, assessment processes are guided by broader university policies that guide PhD level training. Thus, students are assessed through a combination of processes and steps that begin from PhD studentship to being candidates. In all instances, students are trained and guided by their supervisors to acquire the requisite knowledge and competencies to be able to go through certain established hoops which eventually transition them into the next phase aspects of their training. This is usually the case in most doctoral programmes around the world which gives credence to the fact that efforts are made by the centre to align their training processes to international best practice.

These assessment and training guidelines are clearly spelled out to students at the beginning of the programme and are enforced through their continuing relationships with either their supervisors or academic advisors. Thus, students are given access to relevant information to assure transparency. Part of this process also requires that students are given full orientation on their rights, as well as responsibilities as doctoral students. Based on the interactions with PhD students and the faculty, the panel of experts confirms that both PhD programmes have several options of final assessment especially as they relate dissertation, thesis, monographs, and article-based thesis. Overall, the panel of experts concludes that students are directed and

trained to identify which options meet their needs best. However, the limitations stated in Finding 12 above still apply.

It was clear that most students face time constraints to complete their final works. This is mainly because of the nature of how the programmes are structured. During the site visit, the panel of experts learned about the students' complains regarding the challenges they face in opting for the article-based approach where circumstances such as delayed publication processes make it impossible for them to complete their submissions in time (see Finding 12). While this is understandable, considering students may not have any control over publication time frames by specific journals, it seems such circumstances punish students in ways that make most of them averse to choosing the article-based approach. This is a very notable concern which the Centre needs to address. Whatever the circumstances are, they should never disadvantage a student in any way, and they should not be a deterrent to students to choose any approach they may want or desire.

While legitimate concerns are there for students on what thesis routes they chose, it is also important to focus on the quality and competencies of students to make them confident enough to select any particular route. If students lack the requisite competence to function effectively and efficiently in a particular choice, there is always the tendency for them to redirect blame onto other areas. Thus, much as students are provided with multiple choices in thesis routes, it is also critical and extremely important for the faculty and Centre leaders to put mechanisms in place that ensure that students are sufficiently up to the task of making certain choices and working competently within those choices. And, most importantly, the protocols surrounding choices and what it entails must be adequately and transparently communicated to students well in advance.

A weakness in the PhD programmes is the paucity of social elements in the course selection. After review of the provided documents and based on the discussions with the labour market representatives during the site visit, the panel of experts concludes that the courses appear too technical and science-oriented even though every knowledge gained by the PhD students and graduates will have to be actualized in a social setting. The sociology and socio-cultural requirements needed to build the requisite knowledge and competencies in community and social level work is not visible in the programme so that this aspect should be redesigned (**Finding 18**). Similarly, the panel of experts got the impression that the research course lacks clarity regarding its concept and how it is delivered. To be more specific, there is no delineation between qualitative and quantitative research and even though the faculty tried to explain, the panel of experts points out that it is problematic that the entire research training is grouped together as one course. In the current state the research training is not clear, not practicable and remains a weakness in the doctoral programme. ACECoR should reconsider the concept of its research course and describe transparently in the course handbook that aspects of qualitative and quantitative research are included (**Finding 19**).

Finally, the panel of experts commends that the doctoral programmes are student-centred and provide several opportunities for students work in a conducive learning environment while directing their individual learning needs. Guided by the broader university policies, students are given the benefit of knowing what the laid down procedures are in accessing information as well as channelling grievances. The doctoral programmes, because of their duration and the calibre of students who attend, make certain allowances to students so that they are free and able to access information, regulations and procedures which allow them to study in very conducive environments.

Conclusion

The criterion is fulfilled.

5. Student admission, progression, recognition and certification / Legal status, admission and certification

Master's degree

Consistently applied, pre-defined, and published regulations are in place which cover student admission, progression, recognition, and certification.

[ESG 1.4]

Doctoral degree

The institution is entitled to award a doctorate.

Consistently applied, pre-defined, and published regulations are in place which cover student admission, progression, recognition, and certification.

[ESG 1.4]

Description

Admission

The general admission documents that have to be submitted by Master's and PhD applicants include a proof of application, academic certificates, a CV, a motivation letter, two recommendation letters (at least one from a former lecturer/supervisor), and a research proposal in the preferred research area (2-3 pages for Master's programmes and 3-5 pages for PhD programmes). The DFAS Board and the Head of Department screen all applications and create a shortlist for an application interview. The criteria for this are predefined and include a CGPA of at least 2.5 or higher and the correct submission of the documents mentioned above. The homepage of ACECoR also indicates the weightings for applicants (with academic excellence the highest score with 40% and relevant work experience the lowest score with 8%). Applicants with a score of at least 70% will be shortlisted. The subsequent interview process aims to confirm the academic background of applicants and the financial standing to clarify on potential sponsorships. The SER clarifies that the admission requirements had been extended for ACECoR scholarships. These criteria include gender and regional considerations.

Following the ACECoR academic handbook, applicants for the Master's programmes must provide a first degree of a second class lower division or equivalent (2.5 – 2.8 according to the German grading scheme) in a relevant science or engineering discipline from a recognised university. The minimum admission requirement for applicants for the PhD programme is a two-year Master's degree with research in a relevant science or engineering discipline from a recognised university, in case they want to pursue the three-year PhD track. Applicants without a research focus during their Master's degree are only eligible for the four-year PhD track.

Progression

Master's students are required to undertake a minimum of two continuous assessments and one examination in each semester. It is outlined that students not passing two 3 CP courses cannot pass to the next academic level. The progression is also monitored by the supervisor through quarterly progress reports to detect and discuss deviations from the initial student research plan. Weekly seminars are mandatory for graduate students and designed to provide a platform for students and faculty to interact and for supervisors to assess their students' progress.

Recognition

Given the structure of the programmes, mobility windows within the programmes are not integrated into the curricula. However, UCC has signed an agreement with the University of Rhode Island (URI) to roll out a double degree programme for PhD students. Students who want to pursue this possibility have the chance to get a double degree in Biological and Environmental Sciences and Integrated Coastal Zone Management or Fisheries Science.

Certification

According to the SER, UCC operates under Ghanaian law and has been granted to award degrees since its establishment. Graduates of the programmes receive a certificate and a transcript of records.

Experts' evaluation

The experts were positively impressed with the efforts put into the admission process by DFAS' staff. The number of applications exceed the capacity to accept students into the ACECoR programmes. DFAS accepts international candidates of different but relevant study backgrounds for admission (e.g., also relevant social sciences or teaching backgrounds). The panel of experts gained the impression that the selection process works well to identify the most promising candidates and supports ACECoR's strategic goals. In addition, the experts encourage the continuation of efforts taken to actively recruit and fund candidates to ensure gender-balanced cohorts with a diverse background in country of origin. Though considered a truly positive aspect, the panel of experts points out that a considerable amount of staff's time is bound to screen all application documents (including a research proposal) and subsequently to interview all shortlisted candidates. If the number of received applications continues to grow, DFAS should consider how to sustainably scale the workload of the application review process. The selection and weighing of criteria for short listing of candidates is accessible and well described for prospective applicants through the centre's website. However, information on the number of applicants in previous round, the number of open positions per discipline as well as minimum language requirements (esp. considering the many Francophone countries in West Africa) would give applicants even more transparency about their chances (**Finding 20**).

Students admitted to the ACECoR programme are eligible for a scholarship to facilitate the completion of the programme. Student progression is monitored both during course phase and during the research phase. In case of issues, students are guided by ACECoR's study coordinator, yet it remained unclear whether and how these meetings are documented and followed-up on. In line with the very high success rate of the graduates (>90% employment rate), the experts conclude that student monitoring and supervision generally works well. Nevertheless, the panel of experts points out that the university does not evaluate or monitor students' workload beyond teacher contact hours. On the basis of the interviews with students, the experts are convinced that the workload for the four programmes is within limits and it is manageable to graduate in the given time. However, the panel of experts also learned during the meetings that the study duration for students was extended due to delays of fieldwork, research funding, and/or publication. ACECoR should monitor the workload of its students continuously, e.g. by including this aspect in its student surveys (**Finding 21**). MPhil and PhD students can hand in a monograph or an article-based thesis (preferred), which is an adequate practice and potentially allows the university and its researchers to become more visible in the scientific community. However, the university should be mindful of editorial time constraints for article-based thesis so that it does not delay the graduation time of students (cf. Finding 12).

The experts note that although there is no designated mobility window in any of the four programmes, ACECoR actively promotes mobility through conference attendance grants as well as (some) support for internships, study visits, and research stays. At current, ACECoR and the partner institution hosting a study visit, internship, or research stay make a contract, in which the recognition of the work done is regulated via a memorandum of understanding. The experts consider ACECoR's efforts in this regard – especially the double degree programme with the University of Rhode Island (USA) – great first initiatives and encourages the centre and the university overall to further develop and formalize these partnerships. Yet, for the benefit of internationalization and student mobility, UCC has to develop and disclose a transparent conversion system which allows the alignment of its credit, grading, and certification system to that of other institutions. Specific to the European Credit System (ECTS), which is based on student workload, the credit system in Ghana is strictly based on contact hours and does account for self-learning time (see Finding 4). Further, the grading scheme used by

UCC differs from the one used in most European universities (for example “excellent” for above-80% achievement).

Lastly, graduates do receive a transcript or records and a certificate on graduation but they do not receive a diploma supplement or other documentation explaining their qualification in a more elaborate way. While this type of document is not issued by West African universities, it is often required in an international context. Therefore, the panel of experts recommend that a kind of diploma supplement should be introduced to support the students (**Finding 22**).

Conclusion

The criterion is fulfilled.

6. Teaching staff / Academic level of supervisory staff

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]

Doctoral 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

The SER outlines that the teaching staff of the Department of Fisheries and Aquatic Sciences (DFAS) and the Centre for Coastal Management (CCM) can contribute to the four programmes offered by ACECoR. The Centre has four full-time professors, seven associated professors (two full-time and five part-time), thirteen senior lecturers (twelve full-time and one part-time), five lecturers (all full-time), two full-time research, two full-time assistant research fellows, one full-time senior research fellows, and one part-time labour market practitioner. Supervisors of students must hold at least a PhD degree and must have the rank of at least a senior lecturer or a senior research fellow. It is said that all supervisors have expertise in fisheries management, governance, coastal policy, coastal zone management, marine governance, and similar research areas.

All new staff members at UCC are appointed on a renewable six-year term contract, while tenured professorial positions are non-contractual positions until their retirement (with an option to shift these professors into fixed-term positions). The application process for new staff members is regulated by the Human Resources Directorate (DHR) at UCC. Once the application is submitted, suitable candidates are invited to present before the departmental board and their performance is assessed with a score. An applicant has to receive a minimum average score of 70% to reach the pass mark for appointment. Then the application is forward to the Appointments and Promotion Board of the University. At this stage, applicants will have a final interview with said board. All applicants must at least have a PhD degree. The necessary steps for applicants are published at relevant places, and the ACECoR documents the minutes of application interview for internal purposes.

UCC's teaching support unit has created a platform to support lecturers, supervisors, and administrative staff with short-term professional training in pedagogical skills. Scientific training on a short-term basis can be given at higher education institutions in Europe or the United States. Furthermore, administrators have participated in training opportunities in South Africa, Malaysia, and the United Kingdom.

Experts' evaluation

In the provided annexes and the SER, a list of the CVs of the lecturers was provided to the panel of experts. Based on the provided documents and the meetings during the site visit, the panel of experts is convinced of the teaching staff's qualification to teach in the programmes. However, the panel of experts points out that the provided list of teaching staff and provided CV was incomplete. The panel of experts thus suggests ensuring that the information on teaching staff is kept up to date (**Finding 23**).

With regard to the available teaching staff for the MPhil and PhD programmes to be accredited, it appears that the number of staff and the academic qualification of the lecturers involved are adequate. Based on the provided documents, the panel of experts concludes that about half of the teaching staff are full time lecturers. While the number of teaching hours is given for most courses and lecturers listed, the number of hours taught was also missing for some of the lecturers. The panel of experts thus suggests ensuring that the information on teaching staff is complete and kept up to date (see Finding 23).

The panel of experts commends that several lecturers have had their postgraduate training outside Ghana (in Germany, the US, in Canada, or in Great Britain) and most of them seem to have already an important standing in the scientific community as seen by their Google Scholar indicators of publications and the exponential increase of citations over the past few years. Based on the provided evidence, the experts confirm that most lecturers are in their mid-career period (40-50 years old), several lecturers (5) are younger (<40) and were recruited from the Postgraduate Programmes of the University of Cape Coast. Only very few are beyond the retirement age. This seems to ensure the continuation of the study programmes in this cluster for the duration of the accreditation period.

While the number of teaching hours per lecturer is specified for each course, the contribution of how much each lecturer teaches in those courses where several lecturers are involved is not specified. If all the lecturers split the total number of hours dedicated in equal parts, this should be explained, or, if the proportions differ, this needs to be specified (see Finding 23). Overall, the workload for each lecturer seems to be adequate in most cases. However, in some cases it seems to be too high, e.g. the workload of the ACECoR director (of a total contribution of 125h in the ICZM and Fisheries Science programmes according to the provided documents). UCC should monitor the workload of its staff members (including the administrative duties) regularly and adapt if it is too high (**Finding 24**).

Overall, the panel of experts concludes that due to the high academic level of the lecturers, these supervision on the Master's and PhD level should work well.

To monitor thesis progress, students are required to submit quarterly progress reports to the Department through their supervisors, who ensure that their progress is in line with their research plans and that any challenges can be addressed accordingly. Weekly seminars are also organized to provide the platform for students to present the progress of their work to faculty and other students for comments and inputs into their research work.

According to the documentation, the University has established the Centre for Teaching Support (CTS) that continuously conducts training for faculty on educational testing and assessment methods. The Centre uses evaluation of administered test materials and feedback from students to improve the content of their training for the lecturers. The University has a Teaching and Examination Unit under the Directorate of Academic

Affairs. All students of the UCC have online portals through which they access their teaching and examination timetables as well as their results.

The Lecturer appointment/selection process is well documented (as stated in the description part above). The process of appointment of lecturers is transparent and at each stage both the applicant and any interested person can get information on the state and the results captured in minutes that are documented at the various levels of Department, School and College A&P Boards.

A platform has been created for lecturers, supervisors and administrative staff to benefit from short-term professional training in pedagogical skills.

Part-time lecturers are identified from sister public universities. In principle, they are qualified in their respective fields and had to follow the standards established for appointment of lecturers to the University of Cape Coast. A few of the lecturers are from the industry. Once appointed, the part-time lecturers are given orientation to familiarize on the curricular, teaching and assessment modalities and administrative procedures of the University. The University of Cape Coast promotes innovation in teaching through various mechanisms. The panel of experts learned during the site visit that online teaching creates the platform to teach students through the distance mode of education. Furthermore, the introduction of smart classrooms will allow for engagement of students with external lecturers.

Conclusion

The criterion is partially fulfilled.

7. Learning resources and student support / Support and research environment

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]

Doctoral degree

Guidance and support are available for students which include advice on achieving a successful completion of their studies.

Appropriate facilities and resources are available for learning and research activities.

[ESG 1.6]

Description

The programmes are funded by student tuition fees. Additionally, donor funds provide opportunities for tuition and research grants. Accordingly, students might have the chance to receive scholarships and university-based scholarships. According to the SER, material resources are available over the university and the department. It includes lecture rooms, libraries, computer laboratories, and scientific research laboratories. In case the number of available equipment for the students is lower than the number of students, the department issues schedules to assure that sufficient time is assigned to each student. The SER describes that maintenance of equipment is included in the annual budget. The departmental policy includes that predefined parts of every grant is deduced to maintain and augment the current material resources. The SER outlines that UCC's library has subscribed to international journals and databases that are accessible to students of the programmes to be accredited. A database system is implemented to check on the inflows and outdated resources.

After the enrolment in the one of the programmes, students will be assigned to a supervisor by the Academic Board of DFAS. These supervisors will be in line with the research proposal to enable the supervisors to support students in their research thesis. The overall information will be disseminated by the academic coordinator of the department. The overall counselling service unit is responsible for helping the students with any non-academic issues. It is said that these offers are constantly offered to students during the whole student-life cycle. Also, the SER outlines that the DFAS staff has an open door policy for students. Special consultations are offered for students in special circumstances (e.g., pregnant students, students with children or handicapped students). International students are supported by the Centre for International Education at UCC. The Centre shares relevant information with international students before and after their arrival on campus.

According to the SER, the research environment of PhD students includes the availability of physical infrastructure to students including learning material and laboratories. The Centre for Coastal Management is supported by several donors, such as the European Union, the World Bank, DANIDA, USAID and others to support the research activities of PhD students. Through this arrangement, students of DFAS benefit from financial, technical and other logistical support through scholarships, e.g., ACECoR projects or the European Union Power to the Fishers project. Through the ACECoR projects, students of DFAS are provided with the opportunity to attend internships, seminars, workshops, and conferences to present their research findings. Students are financially sponsored to attend these conferences and internships. Master's and PhD students have to take a module concerning ethics in research to uplift the students' skills.

Experts' evaluation

The evaluation of the adequacy of learning resources and student support available for the four programmes under consideration can be done in a generalising way. Several specific details were already explicitly or implicitly addressed in previous parts of the evaluation stated above. The self-evaluation report (SER), additional documents that were provided and the on-site exchange with lecturers and students of UCC did not bring up further issues than those already stated.

The SER as well as the on-site exchange strongly supported the conclusion that study success and efficiency is not limited nor questioned through deficits or shortcomings in learning resources. Lecture rooms, overall library infrastructure, and other learning support provided the impression, that efficient study progress is well possible considering the size of the student cohort. Available resources efficiently support and help with the achievement of the intended learning outcome. The experts' recommendations regarding module description, workload, etc. have been addressed in the chapters above. Programme description, further orientation and introduction measures are generally suitable and adequate for the study programme. The overall structure of the programmes as explained in the study organisation plan is well understandable. The intended workload allows a completion of the studies within the intended time frame and with the necessary resources available. Direct personal contact of students and lecturers to address individual exchange requirements appears to be well established and follows usual standards. However, the lab situation is commented separately below.

The panel of experts concludes that the cohort size of a relatively small group that joins most of the courses and forms a stable interaction network helps students to prevent isolation and loss of orientation. Co-operation and mutual support in form of self-organised exchange and co-operation among the students is in fact a significant factor contributing to the efficiency and success of a study programme of this shape. Furthermore, it should be taken into consideration that in this field of science an ongoing transition in study modes takes place: The amount of research relevant texts as well as the extent of scientific data available in open access media is continuously growing. Online access of these sources reduces the dependency on classical printed information to some extent. The amount of freely accessible online scientific information which are relevant for the programmes under consideration has grown. The university itself can also contribute to such an open access

culture by an encouragement and support of open access publications and research data storages. The University of Cape Coast appears to be aware of this development.

Concerning laboratory facilities, technical conditions, and research environment the panel of experts confirms that the PhD and MSc theses presented for inspection during the visit showed access to and use of advanced scientific methods well comparable to established international standards. To some extent, this was achieved by co-operations and usage of lab space assigned to other programmes of the university and through external co-operations. Based on the infrastructure presented during the on-site visit, the panel of experts points out that the lab assigned to the Fisheries programme is relatively small and mainly suitable for the preparation of fish and aquatic organisms. The experts confirm that the lab is adequate for this purpose. However, complex physical-chemical and advanced analytical methods should not be executed in the lab that was shown to the experts during the on-site visit. A new building, which is currently under construction will provide additional lab space for the programmes of ICZM and Fisheries. The opening of the new building was planned for mid-2023. It is expected that this solves the current limitations that require the co-operation with and use of external facilities. Therefore, ACECoR must hand in additional documents which describe transparently which labs will be included in the new building, which number of students can work in the labs and which kind of equipment will be provided that is relevant for the research activities of Master's and PhD students. A table must be included that describes the kind of lab activities to be conducted by which lab of ACECoR/UCC (current situation) and in future (using the labs of the new building) **(Finding 25)**. Moreover, the lab equipment which was financed by World Bank must be made available for the student and appropriate safety protocol/standards must be implemented without further delay **(Finding 26)**.

Conclusion

The criterion is partially fulfilled.

8. Information / Public information

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]

Doctoral 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 programmes use multiple platforms to inform about their programmes. The main resource is the departmental homepage, newspaper advertisements, and social media platforms. Announcement of admission periods, information on the programmes, and the programme contents are also published on national newspapers and the departmental homepage.

Experts' evaluation

Public information management around the course seems functional and effective and this is evident in the popularity of the courses. Apart from a very functional and active website of the Centre, they also use various media platforms to publicise their activities. These includes print and electronic media with national presence, as well as other social media resources. ACECoR also uses events such as conferences, seminars, short

courses, and international partnerships and collaborations as very effective avenues to create visibility and to publicise their activities. The panel of experts also learned that the broader university leadership is very supportive of the Centre and has used various means and avenues to help communicate and publicise the activities of the Centre.

There is currently a new and permanent structure under construction to house the Centre. The location of the construction by the seafront was carefully chosen and is strategic to increase ACECoR's visibility and to publicise its work. Students' recruitments are announced through the different media in the country and internationally. The fact that ACECoR constantly has international students is sufficient proof of how effective such publicities have been. The Centre also has a strong culture of building stakeholder relationships. While this is also an avenue to disseminate information about their programme, it also facilitates the engagement of diverse stakeholders from both Ghana and beyond who also participate in communicating and publicising the activities of the Centre.

The strong research partnerships around the world, provides a ready avenue for public information sharing as most of these partners come from a diverse background with multiple audiences. Furthermore, most of these stakeholders are kept informed and updated constantly. Most stakeholders, especially labour-market partners, are kept in touch through the website and other channels of communication. In all this, however, the best form of public communication about the Centre's programme and activities is through students, faculty, and staff. Students, as output from Centre's works, must be imbued with the requisite qualities and dispositions that allow them to market the Centre's activities to diverse audiences freely and competently. Such activities are to be complemented by conscious processes of information and communication management for which the Centre has hired an in-house communications officer. The panel of experts therefore concludes that the Centre has, indeed, made significant strides in providing the requisite information through various complementary channels to publicise their activities to multi-layered audiences.

Conclusion

The criterion is fulfilled.

5. Recommendation of the panel of experts

The panel of experts recommends accrediting the following four study programmes

- “Integrated Coastal Zone Management” (M.Phil, Master of Philosophy)
- “Integrated Coastal Zone Management” (PhD)
- “Fisheries Science” (M.Phil, Master of Philosophy)
- “Fisheries Science” (PhD)

offered by University of Cape Coast with conditions.

Findings:

1. For both Master’s programmes the study handbooks must be revised:
 - a. The intended learning outcomes (ILOs) in the **course descriptions** must be revised to become more precise and explicit.
 - b. The **references in the course descriptions** must be updated with more recent literature.
 - c. The course descriptions must be checked for completeness (including lecturers) and gaps must be filled.
2. For the Master’s programme in ICZM, the programme should be checked for **redundancies in the schedule**, specifically Module 6 (Academic writing), Module 8 (Research methods in Integrated Coastal Zone management) and Module 10 (Current research and Communication in Integrated Coastal Management).
3. For both Master’s programmes, it is recommended to introduce **Portfolio** as a new and motivating examination form where appropriate.
4. For all study programmes, a transparent conversion system which allows the **alignment of its credit (e.g. ECTS), grading and certification system to that of other institutions** should be developed and disclosed.
5. For both Master’s programmes, the **duration of internships** should be extended to at least two months.
6. For the Master’s programme in ICZM, students should be better **qualified in the use of mapping tools**, e.g., GIS software. The course “Research methods in ICZM” which precedes the internship should be revised accordingly.
7. For both PhD programmes, the **guidelines on student support for the supervisor** should be revised and easily accessible.
8. For all programmes, a clear **concept for the internship** (target, duration and interlinkage with research project) should be handed in. Efforts should be strengthened to build contacts with fisheries industries and other application fields in Ghana.
9. For both PhD programmes, measures should be taken to foster **student mobility/conference attendance**.
10. For the Master’s programme Fisheries Science, the **admission criteria** should be clarified regarding the study background of the students and the criteria should be described in a competence oriented way.
11. For the Master’s programme **Fisheries Science**, Modul 2 (Malacology) should include more species and be renamed. Alternatively, one should integrate a new module on Marine Biodiversity in a specific module

in the context of an ecosystem approach. The specific focus on the Ecosystem Approach to fisheries (EAF) should become an element in the study programme. Food web interactions and multispecies modelling approaches should also be integrated.

12. For both PhD programmes, ACECoR should change its regulations so that the **journal paper version of a PhD** becomes the standard. The programmes should develop a strategy how they can increase the proportion of paper-based PhD thesis (cumulative rather than monographic).
13. The Centre should **include students** in its management processes more explicitly and improve the accessibility of information for them.
14. To close the **feedback loop of the QA procedures** the communication of review outcomes and actions taken must be improved. At least, the aggregated results must be made accessible for students and externals.
15. UCC should make its **procedures safeguarding academic integrity** more transparent and visible.
16. ACECoR should regularly and systematically **monitor its graduates** and use the results for the improvement of its programmes.
17. For both Master's programmes, the **flexibility of the curriculum structure** should be strengthened to allow students to select specific courses or to extend the internship.
18. For both PhD programmes, **competencies in community and social level work** should also be included in the curriculum and teaching.
19. ACECoR should reconsider the concept of its **research course** and describe transparently in the course handbook that aspects of qualitative and quantitative research are included.
20. **Information** on the number of applicants in previous round, the number of open positions per discipline as well as minimum language requirements should be published for future applicants.
21. ACECoR should **monitor the workload of its students** continuously, e.g. by including this aspect in the student surveys.
22. For all study programmes, graduates should receive a **diploma supplement** or other documentation explaining their qualification more transparently.
23. For all study programmes, ACECoR should ensure that **information on teaching staff** is kept up to date. The study programmes should be able to present CVs for all lecturers and have a complete list of teaching hours for its teaching staff.
24. UCC should **monitor the workload of its staff members** regularly and adjust it accordingly.
25. ACECoR must hand in additional documents which describe transparently **which labs will be included in the new building**, which number of students can work in the labs and which kind of equipment will be provided that is relevant for the research activities of Master's and PhD students. A table which allows a comparison between the labs in the old and the new building must be handed in.
26. The functionality of the labs must be improved at short notice by making the **lab equipment** available for the students and by implementing **appropriate safety protocol/standards** as soon as possible.