

Expert report on the accreditation procedure for the “Quantitative Social Sciences” bachelor programme conducted in Vienna by the Central European University Private University

pursuant to § 7 of the Accreditation Regulation for Private Universities 2019 (PU-AkkVO)

Vienna, 23. April 2021

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1 Basic principles for the procedure

The Austrian higher education system

To date, the Austrian higher education system comprises:

- 22 public universities; including the Danube University Krems, a public university for post-graduate continuing education;
- 16 private universities, run by nationally accredited private entities;
- 21 universities of applied sciences, run by state-subsidised entities organised under private law or by nationally accredited public entities;
- the university colleges of teacher education, run by nationally accredited public or private entities;
- the philosophical-theological higher education institutions, run by the Catholic Church;
- the Institute of Science and Technology – Austria, which focusses its tasks on the advancement and appreciation of new fields of research and a post-graduate training in the form of PhD and postdoc programmes.

In the winter semester of 2019/20, 288,497 students were enrolled at public universities (incl. the Danube University Krems). Furthermore, 55,203 students were enrolled at universities of applied sciences and 15,063 students at private universities.¹

External quality assurance

Pursuant to the Act on Quality Assurance in Higher Education (HS-QSG), public universities shall perform an audit procedure for the certification of their internal quality management system every seven years. There are no legal or financial consequences linked to the decision on certification.

Private universities require institutional accreditation conducted by AQ Austria every six years. After twelve years of uninterrupted accreditation, the accreditation may also be awarded for twelve years. Interim degree programmes and certificate university programmes for further education leading to a degree programme also require accreditation.

Following the six-year period of institutional initial accreditation, universities of applied sciences must be re-accredited. After that, they pass on to the audit system. However, the accreditation is linked to a positive decision on certification in the audit procedure. Before degree programmes may be offered, they must be accredited once.

Accreditation of private universities and their degree programmes

In order to be active as a higher education institution in Austria, private universities require institutional accreditation which must be renewed on a regular basis. In addition to institutional accreditation, newly established degree programmes must be accredited once before they may be offered by the private university. The Agency of Quality Assurance and Accreditation Austria (AQ Austria) is responsible for carrying out accreditation procedures.

The accreditation procedures are carried out in accordance with AQ Austria's Accreditation Regulation for Private Universities 2019 (PU-AkkVO). Furthermore, the agency has based its

¹As at January 2020, data source: Statistics Austria/unidata. Contrary to the data of the public universities, the student numbers of the universities of applied sciences do not include non-degree seeking students. 265,012 degree students were enrolled at the public universities in the winter semester 2019/20.

procedures on the Standards and Guidelines for Quality Assurance in the European Higher Education Area.²

The AQ Austria appoints experts for reviewing accreditation applications. On the basis of the application documents and a site visit at the applicant institution, the experts draw up a joint written expert report. The Board of the AQ Austria then makes a decision on accreditation which is based on the expert report and takes into consideration the higher education institution's comment on the expert report. If the statutory prerequisites for accreditation are met and the required qualitative requirements are fulfilled, the degree programmes shall be accredited by official notification.

Before its entry into force, the official notification of the Board shall be subject to approval by the competent Federal Minister. After the procedure has been completed, a report on the outcome of the accreditation procedure as well as the expert report shall be published on the websites of AQ Austria and the applicant institution. Personal data and those parts of the report that disclose funding sources as well as business and operational secrets shall be exempt from publication.

The Act on Quality Assurance in Higher Education (HS-QSG) and the Private Universities Act (PUG) form the legal basis for the accreditation of degree programmes at private universities.

2 Short information on the accreditation procedure

Information on the applicant institution	
Applicant institution	Central European University Private University (CEU PU)
Legal nature	GmbH
Initial accreditation	16/07/2019
Last extension of accreditation	-
Site/s	Vienna
Number of students	ca. 1800 planned
Information on the accreditation application	
Name of the degree programme	Quantitative Social Sciences
Type of the degree programme	Bachelor programme
ECTS credits	180
Normal period of studies	3 academic years (9 terms)
Number of study places	40
Academic degree	Bachelor of Arts, short BA
Organisational form	Full-time
Language used	English

² Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)

Site at which the degree programme is offered	Vienna
Tuition fees	€ 10,000.- ³

The Central European University Private University submitted the application for accreditation on 06.08.2020. In its decision on 11.11.2020, the Board of AQ Austria appointed the following experts for the review of the accreditation application:

Name	Institution	Role assumed in the expert panel
Prof. Dr. Beate Volker	Utrecht University	Chairing expert with scientific qualification
Prof. Dr. Thomas Grund	University College Dublin	Expert with scientific qualification
Prof. Dr. Lorien Jasny	University of Exeter	Expert with scientific qualification
Dipl. Ing. Kevin Winter , M.Sc. M.A. B.Sc. B.Sc.	Invenium Data Insights GmbH	Student expert with professional practice

On 28.01.2021 the experts and representatives of the AQ Austria conducted an online site visit.

3 Review and assessment based on the assessment criteria stipulated in the PU-AkkVO

3.1 Assessment criteria § 17 (1) 1 to 2: Development and quality assurance of the degree programme

Development and quality assurance of the degree programme

1. The degree programme was developed using a predefined procedure for the development and establishment of degree programmes and involving the relevant stakeholder groups.

The point of departure for designing the new programme was the observed lack of a European bachelor programme that includes both, a strong quantitative orientation on the analysis of social science research questions as well as knowledge of social science theories. When CEU PU had made the decision to develop undergraduate programmes, the demand for such an interdisciplinary endeavour became clear. Importantly, in continental Europe, no such bachelor programme exists, although there is an excellent labour market for social scientists. More in specific, in particular for social scientists who strongly lean towards quantitative analyses and who are broadly trained in the various aspects of data science, employment opportunities are

³ A reduced tuition for the first cohort will amount to € 7.000.-. Later cohorts will be paying the full tuition.

currently excellent and will most likely still increase in the near future. In the process of defining the programme proposal, national and international stakeholders were consulted and the demand for the programme was confirmed.

The new programme is a result of joined efforts of CEU PU's social science scholars (including economics and environmental sciences), network science scholars and data scientists. In addition, given the current developments towards integration and innovation at the crossroads of disciplines, an interdisciplinary programme such as the BA Quantitative Social Sciences is an important effort. Also, it marks a change in CEU PU's tradition of conceiving Social Science and Humanities from a theoretical and non-empirical (or small-scale empirical) point of view without close connection to large scale data analysis and methods training.

Last, but not least, it is important to note that the university intends to invest in more BA programmes as well as in master programmes that build upon this BA programme. In other words, the BA programme is part of a larger enterprise of CEU PU, it is a desiderate by CEU PU as an institution in order to achieve both: being at the forefront of scientific development and meeting new demands of the labour market.

The development of the programme started with a comparably informal committee consisting of members of the different departments, who formulated the backbone and the central ideas of the curriculum. These plans were discussed with the university board and, after informal approval, officially put into an application. The programme was developed in close cooperation and in consultation with both, students and teaching staff. The admission was officially handed to the Senate, who supported the accreditation after a round of questions and discussion of the potential ins and outs.

The procedure described above followed predefined clear standards, procedures, and criteria. CEU PU has an elaborate policy for the establishment of new degree programmes. In more detail, the procedure entails five steps, starting with the discussion of the proposal in the Academic Sub-committee of the senior leadership team, which gives the endorsement for introducing the programme proposal to the Academic Forum and the Senate. The presentation of the programme proposal to that committee is the second step and needs approval by the Senate. In the third step, the programme is registered with the New York State Education Department and accredited by the Agency for Quality Assurance and Accreditation Austria (AQ Austria). After registration and accreditation, the Academic Committee of the Board of Trustees is officially informed about the newly established degree programme at CEU PU.

The experts consider the criterion to be **fulfilled**.

Development and quality assurance of the degree programme

- 2. Following its accreditation, the degree programme is incorporated into the private university's quality management system.*

CEU PU has rigorous formal rules and policies for the development and quality assurance of degree programmes. All important steps in the procedures concerning the preparation and launching of a new programme at CEU PU are documented and elaborated in CEU PU's degree programme policy.

Annual reports inform about functioning and progress of the programme and provide assessments of the quality of performance of separate courses. Courses are extensively described in these reports and all courses are regularly evaluated by the students. All necessary

elements of the annual reports are prescribed in the documents provided by CEU PU. Further, CEU PU's degree programme policy states all elements that must be included in the syllabi in order to provide insights and homogeneous information on the content of the courses. Both, the Senate and the Academic Quality Assurance Committee of CEU PU, discuss and evaluate the yearly reports and provide recommendations or suggest concrete actions, in case improvement is necessary. The annual reviews are quite concrete and focus on all important elements on the course level. In addition, there are more general reviews on the programme or curriculum level. It is outlined in CEU PU's Institutional Assessment and Quality Assurance Policy that the quality of the academic activities of departments and their programmes is reviewed at least once in five years. The intervals can be shorter if the departments consider this as necessary, which might be the case if parts of the curriculum were new, or if problems turn up. Such reviews evaluate the performance in relation to the mission of the department and CEU PU. In the curriculum, the general quality of teaching as well as job prospects of the graduates are considered. This quality assurance policy has already been proven successful for other programmes.

Furthermore, the experts learned that there is a lot of informal exchange on the quality of the courses and the students' progress apart from the standardised rules. It became clear in the interviews that teachers and students closely interact regarding the programme's content and quality and ideas for improvement are valued and quickly taken up.

In general, the programme's intended learning outcomes are well-defined and documented and they meet the requirements of the National Qualifications Framework. The structure and contents of the curriculum ensure that the outcomes can be achieved. Also, the number of ECTS-credits that students attain follow the standards of bachelor programmes. These aspects will be described in further detail in the evaluation in of the degree programme and the degree programme's management.

In addition to the quality assurance of the programme, entry rules are defined, which are outlined in the documents provided by CEU PU. These rules concern the deadlines for documents that students need to provide as well as the eligibility for admission. All applications are individually reviewed and discussed in the team of teachers. The admission procedure is described in further detail in the evaluation in of the degree programme and the degree programme's management.

The experts consider the criterion to be **fulfilled**.

3.2 Assessment criteria § 17 (2) 1 to 11: Degree programme and degree programme management

Taking into account a heterogeneous student body, the following criteria shall apply. In the case of degree programmes with special profile elements, the descriptions shall furthermore address the characteristics defining the profile. Special profile elements are, for example, compulsory vocational practice, organisational forms which are offered alongside professional activity, distance-learning degree programmes, joint degree programmes or jointly offered degree programmes etc.

Degree programme and degree programme management

1. *The degree programme is oriented towards the profile and the objectives of the private university and is clearly in line with the development plan.*

The programme perfectly meets the development plan of CEU PU, as described in the application documents. CEU PU has adopted clear policy rules and all necessary institutional committees are in place.

As to the vision for the programme, CEU PU's perspective is to have a small programme, and the focus on an open and interactive culture is quite important. The values that are guiding CEU PU's actions as outlined in the application documents, are i.e., mutual respect and the promotion of advanced knowledge, pursuit of truth, academic freedom and university autonomy, and, last but not least, diversity and inclusion/tolerance. A programme such as the Bachelor in Quantitative Social Sciences fits very well into these core values. The explicitness of stating these values makes CEU PU unique.

Furthermore, as already mentioned above, the decision for establishing a programme with an emphasis on quantitative analysis of social phenomena was based on societal and scientific developments. It is acknowledged by scientists and policy makers that urgent scientific and societal problems are interdisciplinary, 'wicked', and that they are requiring expertise from different disciplines, since they cannot be understood from one perspective alone. Likewise, quantitative methods and types of data have become more complex, which requires profound knowledge of statistical methods and computational skills. Both, the scientific understanding of modern society and social phenomena as well as delivering first class research requires knowledge on social theories (in the broad sense) and data skills. Importantly, the programme also emphasises knowledge on network theories, data, and analysis. This is in line with the analysis of complex problems. It will be a specific asset of this programme at CEU PU that network theory and methods of analysis are extensively taught. Hence, the programme uniquely integrates and brings together different scientific disciplines and methods that are at the forefront of newly developed techniques. This is brought together and integrated in this programme.

As to the programme structure, the classes are a mix between lectures and seminars. Students are encouraged to specialise, but standards are homogeneous across different routes and tracks. There are three categories of courses, mandatory, mandatory elective, and free elective. The latter implies the possibility to choose any course offered at CEU PU. Courses in the first year are all mandatory, in subsequent years choice options increase. The specialization tracks include sociology, economics, environmental sciences, political sciences and data science. Students have to choose two out of these five tracks.

The programme is currently developed for 40 students each year. Other BA programmes that are already running started with 50 students and numbers are increasing. Policies for student numbers that deviate from these estimates are already in place. In case student numbers are lower (which is unlikely) the programme will still be taught as planned, and advertisement will be extended. In case student numbers are much higher, more staff can be hired. Finally, the choice options for students are often smart combination with courses taught in other programmes, implying that no extra courses have to be taught for very small groups.

The experts consider the criterion to be **fulfilled**.

Degree programme and degree programme management

2. The profile and the intended learning outcomes of the degree programme have been clearly defined. They include scientific and/or artistic competencies, personal skills, and social competencies, they meet the professional requirements and are in accordance with the respective level of the National Qualifications Framework. As regards regulated professions, the private university shall describe, if and under which preconditions access to those professions can be ensured.

The intended learning outcomes are solid and follow the intention of the programme. The level of the National Qualification Framework VI is the basis and the mentioned qualifications are clearly met. The student-teacher ratio of 10:1 is much lower than in most public universities and teachers are well known experts in their field. Contact and exchange between teachers and students are guaranteed in regular meetings and there is a lot of informal exchange.

More in detail, the intended learning outcomes of the programme are as follows. Students who have completed the programme will have:

- i) a detailed knowledge of quantitative methods in social science,
- ii) a broad background in the central areas of social sciences and a detailed knowledge in the chosen field of specialization,
- iii) the ability to employ and devise mathematical models to social phenomena,
- iv) the ability to work independently, to research their own interests, and to present their work in public,
- v) a good background to pursue a master's degree in the disciplines in which they specialize.

These outcomes are very well connected with the programme (see below). In the first year the students learn many different methods and acquire state of the art knowledge on quantitative techniques of analysis in the social science. Furthermore, they get an overview and introductory courses on different disciplines of social sciences, of which they choose tracks for their specialization.

The National Qualifications Framework level of the programme is VI, which indicates that it is a full time, three-year programme at BA level. The programme is in accordance with the respective level of the National Qualification Framework.

The experts consider the criterion to be **fulfilled**.

Degree programme and degree programme management

3. The name of the degree programme and the academic degree correspond to the degree programme's profile.

The name of the degree programme "Bachelor in Quantitative Social Science" covers the content of the programme and is recognizable for students and potential employers.

It is explicitly chosen for a BA (Bachelor of Arts) course and not for a BSc (Bachelor of Science), because the academic degree BA gives a better indication of the aim of the programme, i.e. the integration of social theory and knowledge related to Social Sciences and Humanities with quantitative approaches as usually applied in natural sciences. In this sense, the degree BA corresponds to the programme's intention and contents.

The experts consider the criterion to be **fulfilled**.

Degree programme and degree programme management

4. The contents and structure of the curriculum ensure that the intended learning outcomes are achieved, while combining research (research and development and/or advancement and appreciation of the arts) and teaching

In the application documents, CEU PU provided a programme proposal document for the BA Quantitative Social Science. This document outlines the general programme learning outcomes, teaching methods as well as programme structure overview. This overview also includes a detailed listing of all mandatory and optional courses. Furthermore, CEU PU provided a document with course syllabi of all mandatory courses, including credit weighting, course instructor, description, assessment strategy, course readings, course specific learning outcomes, weekly schedules. The experts consider the assessment strategies as adequate.

The learning outcomes of the separate courses are in line with the general intended learning outcomes of the programme, which are described in § 17 (2) 1. The structure of the programme enables the achievements of these goals. More in detail, the intended outcome of a comprehensive and state-of-the-art-knowledge of quantitative methods in social science and a broad background of the areas of social sciences is achieved through the various methods courses and the courses on the different social science disciplines in the first year. The outcome of being able to employ and devise mathematical models to social phenomena is achieved via the courses 'complex systems' or 'machine learning'. The ability to work independently is trained in courses with a more practical character (e.g. in the course 'Data Science Project'), where students pursue their own research project and get hands-on supervision and support in order to learn how scientists do their work. Finally, such a training enables students to pursue a master's degree, the more because explicit attention is given on career paths in a specific course and because students write a bachelor's thesis, where they pursue their own projects.

This bachelor programme is research-oriented but will also enable students to work in organisations other than in academia. The structure of the curriculum follows that idea and students learn many skills related to presentation of analysed data combined with a basic knowledge of social science theory. Alumni of the programme will know the language of social sciences as well as of computer sciences, bridging a gap that is often addressed as impediment of further progress in industry and science as well. On the one hand, the programme enables students to work in an industry, given that the contact with potential employers is well established and that many teachers are well connected with industries. On the other hand, as mentioned above, students are well equipped to pursue additional studies, i.e. a master's programme.

Note furthermore, that in every year of study, students undertake courses in mathematics, data science, and social sciences, which also indicates the integration of these fields. There are also teaching methods in place, which enhance integration between students and staff, for example, in research seminars where experts present their work.

The structure of the two tracks that students chose is as follows: students pursue 12 ECTS credits with mandatory courses and 20 ECTS credits with freely chosen courses from all the tracks. In the experts' opinion, this is a very smart combination of offering choice but nevertheless guaranteeing a homogeneous programme and equal standards. In other words, students are allowed and encouraged to choose their own path, but at the same time standards and contents are similar. Students are required to complete a BA thesis and participate in research seminars.

As to the management of the programme, there is an extensive infrastructure in place, which will be employed for this new programme.

The experts consider the criterion to be **fulfilled**.

Recommendation:

In the experts' opinion the programme structure is sound and well-suited to achieve the programme learning outcomes. They would **recommend**, though, to closely monitor the integration of social science theories on the one hand and data science and mathematics on the other hand. The asset of the programme itself is this integration. In the final conclusion these recommendations will be further elaborated.

Degree programme and degree programme management

5. The didactic conception of the degree programme's modules shall ensure that the intended learning outcomes can be achieved and promotes the students' active contribution in the learning process.

The course syllabi appended to the application describe the learning activities, teaching methods and the anticipated learning outcomes of each course. The didactic methods stated vary from traditional lectures and seminars to group projects and research assignments. Most courses utilize more than one method, however, mostly lectures and seminar discussions. Courses in the field of Programming and Data Analysis often include group projects and teamwork as well. Overall, these methods are suitable for achieving the expected learning outcomes.

The expert panel considers this criterion to be **fulfilled**.

Degree programme and degree programme management

6. The workload related to the individual modules ensures that the intended learning outcomes can be achieved within the stipulated duration of studies, and in case of part-time degree programmes takes into account any professional activity. The ECTS is applied correctly.

The programme as laid out in the application is organized in nine terms (trimesters) over three years with a total of 180 ECTS credit points. According to CEU PU's website, the fall term lasts 12 weeks from the end of September to mid-December with students being expected to earn 24 ECTS credit points. The winter term starts at the beginning of January and ends at the beginning of April. As in the fall term, this equals to 24 ECTS credit points in 12 weeks. Lastly, the spring term from mid-April to mid-June is 11 weeks long, but only consists of 12 ECTS credit points. Considering the average effort of 25 hours for a student to earn 1 credit point, this results in an average workload of 50 hours per week in the fall and winter terms, and 27 hours per week for the spring term.

According to the application, the individual modules in each term are worth between 4 and 12 ECTS credit points, which is within the typical range. The content and the resulting workload of the modules adequately matches the amount of credit points awarded. The final thesis is worth a total of 16 credits. In the winter term of the third year 4 credits are reserved for an introduction to scientific writing and the initial literature review. In the following spring term 12 credits are awarded for the completion of the thesis.

The workload related to the modules and the distribution thereof across the terms allow for the achievement of the intended learning outcomes within the period of three years.

Therefore, the expert panel considers the criterion to be **fulfilled**.

Degree programme and degree programme management

7. *The private university has adopted examination rules. The examination methods are suitable to assess whether and to what extent the intended learning outcomes have been achieved*

CEU PU has defined general examination rules in the "Student Rights, Rules, and Academic Regulation" document appended to the application. In order to graduate, students are required to pass all courses as well as the thesis. At the end of each year, the overall GPA obtained must be above 2.66. Otherwise, students are placed on academic probation for the duration of the subsequent academic year, in which they can improve on their grades. If their GPA is still below 2.66 after this year, their enrolment will be terminated. If a student fails an examination, one retake is granted.

In the syllabi appended to the application, the examination methods for each course are outlined. In general, most courses utilise a combination of multiple methods. Courses with a more technical content often include group projects or reports in addition to the more traditional exams and homework assignments. Additional mid-term exams are used as well, allowing for better distribution of workload and achievable points across the term. Social science courses are mainly assessed through essays and projects, as well as in-class participation in seminar discussions. This variation of examination methods allows for both a suitable way of assessing the learning outcomes of students as well as balancing the workload within and across terms.

The expert panel considers the criterion to be **fulfilled**.

Degree programme and degree programme management

8. *A "Diploma Supplement" that complies with the requirements laid down in Annex 1 to § 6 of the University and Higher Education Statistics and Education Documentation Decree (Universitäts- und Hochschulstatistik- und Bildungsdokumentationsverordnung, UHSBV), original version: F. L. G. II no. 216/2019, will be issued.⁴*

In the annexes of the application CEU PU include a copy of the diploma supplement. The diploma supplement includes all necessary information as required by the UHSBV.

The expert panel considers this criterion to be **fulfilled**.

Degree programme and degree programme management

9. *The admission requirements have been clearly defined. In terms of the qualification level, they correspond at least to the provisions provided by the Universities Act 2002 (UG), F. L. G. I no. 120/2002.*

The general admission requirements are defined in the document "Admissions Policy and Procedures of Central European University" provided by CEU PU. Applicants for bachelor's programmes are required to have successfully completed their secondary education and be proficient in English. If the first language of applicants is not English, test scores of standardised

⁴ The Accreditation Regulation for Private Universities 2019 (PU-AkkVO) refers to Annex 2 of the UniStEV 2004. This decree was amended, Therefore, the text of the assessment criterion in the expert report was adapted accordingly.

English tests like TOEFL, Cambridge English, IELTS, Pearson Test of English or Euroexam Academic must be submitted. The minimum required score for each of these tests is provided in the policy. In addition to these general requirements, the Quantitative Social Sciences programme requires applicants to show evidence of sufficient competences in mathematics. The programme accepts standardised math tests such as SAT, ACT, AP Calculus, A levels or IB Math as proof. If none of these can be provided, CEU PU offers an online math test instead. Moreover, the programme requires applicants to submit a motivation letter, an essay and a recommendation letter and to fill out the online application form. All the requirements are clearly defined in the policy and on the website.

The expert panel considers this criterion to be **fulfilled**.

Degree programme and degree programme management

10. The admission procedure has been clearly defined and ensures a fair and transparent selection of the applicants according to the admission requirements and the required competencies.

The admission process is outlined in the same policy as the admission requirements. The process involves the following steps.

First, all the required documents as stated above are evaluated for eligibility and correctness.

Second, applicants are evaluated and ranked according to these criteria:

1. GPA. The score is calculated by multiplying the GPA (1-4) by 5 for a maximum possible score of 20.
2. CV. Applicants may receive a maximum of 5 points.
3. Letter of motivation. Applicants may receive a maximum of 5 points.
4. Application essay. Applicants may receive a maximum of 5 points.
5. Reference Letter. Applicants may receive a maximum of 5 points.
6. English proficiency. Applicants may either pass or fail this criterion (5/0 points; some points may be deducted based on writing and speaking skills of an applicant).
7. Math skills. Applicants may receive a maximum of 10 points.

The above scores create a first-stage merit list. Based on this, top candidates are invited to be interviewed. This is done by a panel convened for this purpose, which contains three faculty members involved in the BA in Quantitative Social Sciences, as well as members of the private university's Admissions Office. Offers are made to applicants based on the performance of the interview, together with the above score.

This process with its clearly defined evaluation criteria is well suited to ensure a fair selection of applicants. The expert panel considers this criterion to be **fulfilled**.

Recommendation:

The experts **recommend** that the applicants are allowed to get insight in both the ranking scheme as well as the points they achieved in order to provide additional transparency.

Degree programme and degree programme management

11. The recognition procedures for higher education competencies and, if applicable, competencies acquired outside higher education in terms of crediting towards examinations or parts of a degree programme have been clearly and transparently defined. When recognising or crediting higher education competencies, the Convention on the Recognition of Qualifications concerning Higher Education in the European Region (Lisbon Recognition Convention) shall be considered.

In the "Student Rights, Rules, and Academic Regulations", CEU PU lays out their "Credit Transfer Regulations". Bachelor students of CEU PU may transfer up to 30 ECTS credits from accredited universities. Additionally, up to 60 ECTS credit points may be recognised for students taking a year abroad as part of their degree programme. Credits from non-degree programmes may be recognised up to an amount of 16 ECTS credit points if additional conditions are met. Such competences cannot be used to satisfy mandatory degree requirements. Furthermore, the learning outcomes and the number of classroom hours must be in line with CEU PU's course. Applications are submitted to the Student Records Office and reviewed by the Dean of Undergraduate Studies at CEU PU. The application procedure is clearly defined.

The expert panel considers this criterion to be **fulfilled**.

3.3 Assessment criteria § 17 (3) 1 to 5: Staff

Staff

1. The private university shall provide for sufficient scientific and/or artistic staff as well as sufficient non-academic staff for operating the degree programme.

CEU PU's application includes a document providing instructors for all courses. They list 47 current faculty members with courses assigned to them as well as 6 visiting faculty assigned to courses. This is considered sufficient for the planned intake of 40 students.

The intent is to hire two new faculty members to teach some additional courses, but the aforementioned document also provides a contingency plan of alternative teachers in case the hires do not take place. Staff commitment to teaching (and research) is very high and all teaching is undertaken by permanent staff. The common procedure of many public universities to hire fixed term staff for teaching assistance is not adopted by CEU PU, which guarantees high quality of teaching and supervision. It also guarantees the possibility of continuous improvement of courses and cumulation of experiences.

During the discussion at the site visit the question of adequate non-academic staff was raised. Participants stated that this staff time would be covered by personal of the departments involved in the proposal and delivery and was considered sufficient.

The experts consider the criterion to **be fulfilled**.

Staff

2. The relation between permanent scientific and/or artistic staff and students shall be in accordance with the profiles of the respective degree programmes. Permanent staff here means working at least 50% of one's total working hours in salaried employment at the private university.

The application documents include CEU PU's general students' rights and regulations of what the students are entitled to, including representation in academic governance. Examples of course syllabi include intensive interaction with students. The programme proposal also includes a thesis, for which the student will select a supervisor and closely work with her or him. During the site visit, this was discussed especially with regard to how students would select their thesis supervisor and what the implications are for staff workload. Given the envisaged staff-student ratio it was assured that the core staff would be certainly able to handle close supervision as well as easily tackle the process of selection of supervisors and developing the thesis project. The number of permanent staff (47) involved is considered sufficient for the planned intake of 40 students.

The experts consider the criterion to **be fulfilled**.

Staff

3. The subject-specific core competencies of the degree programme are covered by permanent professors.

In the application documents it is stated that "All core subjects are taught by permanent faculty who spend at least 50% of their working hours in salaried employment at the University."

The core competencies are in Mathematics, Data Science, Social Science, and Environmental Science. The application documents list 22 different courses designated as core. These are all taught by either a member of the 47 permanent staff or to be taught by the two new hires. This information was discussed and confirmed during the visit.

The experts consider the criterion to **be fulfilled**.

Staff

4. The scientific staff or the artistic staff, respectively, is qualified according to the requirements of the activities provided for in the degree programme.

The CVs supplied show excellent competencies for the requirements of the degree programme. Staff members and teachers of courses have extensive publication records, grants, prizes, and other accomplishments. For example, one of the professors has published 40 articles and won the Erdos-Renyi prize for Network Science in 2019. In addition, while the undergraduate programmes at CEU PU are relatively new, many of the permanent faculty involved in this programme have extensive experience in teaching undergraduates at other institutions. This, in combination with the Faculty Table provided in the application documents, shows an excellent range of qualified staff. In addition, the application documents include the job posting for an associate or full professor of data science and machine learning, which will add to the impressive qualifications.

The experts consider the criterion to **be fulfilled**.

Staff

5. The prioritisation of the permanent scientific or artistic staff's teaching, research, and administrative activities ensures adequate participation in teaching in degree programmes and leaves sufficient time for research and development or the advancement and appreciation of the arts.

The Academic Staff Handbook specifies the workload. According to this document, the typical full-time teaching load for faculty members at CEU PU is 24 ECTS credits over the course of at least two terms. Faculty members with the title of "University Professor" need to teach 16 ECTS credits. Furthermore, a teaching reduction of altogether 8 ECTS credits for junior faculty can be awarded in the first two years. The teaching load for instructors is 20 ECTS credits. All of the courses listed for the programme range from 4 to 12 ECTS points. This load was considered standard by the experts. In addition, 6 months of research leave may be granted after 3 years and 12 months after 6 years in addition to other relieve for expanded administrative duties. These regulations are CEU PU wide and outlined in the Academic Staff Handbook. These conditions are exceptional and guarantee that research and teaching go hand in hand in the sense that teaching is an 'outlet' of research activities of staff members.

The course load and research time were discussed in the site visit. The faculty members consistently described it as being more than adequate to allow for research advancement and time divided between administration, research and teaching. Specifically, the experts asked if the close attention to students in this programme would overload the faculty involved. The response was, however, that given the low numbers of students (40) and resulting high ratio of permanent faculty to students this would not be a problem.

The experts consider the criterion to **be fulfilled**.

3.4 Assessment criterion § 17 (4): Funding

Funding

The degree programme's funding is secured. Provisions have also been made to fund expiring degree programmes.

In the application documents CEU PU provided annual financial projections until AY24/25. These projections also specify the assumed student numbers per AY as well as details of expected costs per AY. These projections show a positive net balance for all years until AY24/25. CEU PU also provided statements of their endowment fund, assets, a detailed narrative of revenues and expenses as well as statements from the Open Society Foundations (OSF), which provides the main source of funding until 2032 for CEU. Together, these statements provide evidence for secured funding of CEU PU until 2032 (OSF, EUR 550mIn) as well as evidence of a sizeable endowment (approximately EUR 485mIn as of September 30, 2020) to support CEU PU's operation. Income from student fees and tuition is expected to be at EUR 6.2 mln in AY24/25. In discussions during the site visit the leadership of CEU PU reiterated their commitment to the BSc QSS programme.

The experts consider this criterion to be **fulfilled**.

3.5 Assessment criterion § 17 (5): Infrastructure

Infrastructure

Quantitatively and qualitatively adequate facilities and equipment are provided for the degree programme. In the case that the private university draws on external resources, their authorisation to use them has been contractually secured.

In advance of the site visit images of computing infrastructure were shared, which are excellent. CEU PU's application documents provide details on the classrooms and computer rooms on campus. Classrooms are available in a variety of sizes. Computer labs with 62 desktop computers are also available. In addition, and particularly important for a computational degree, the University has purchased time on the Vienna Scientific Cluster, and the department has access to new computing facilities shared with Complexity Science Hub in Vienna. These were also discussed during the site visit with both students and faculty who felt the classroom and IT resources were excellent. One recommendation was to expand the electronic journals that can be accessed through the library. The students also noted that CEU PU has handled the current crisis extremely well with students well informed about any changes to their learning and how online and hybrid learning will be approached. They stated that current professors were available and involved. This is high praise for entirely new undergraduate degree programmes.

The experts consider this criterion **fulfilled**.

3.6 Assessment criteria § 17 (6) 1 to 2: Research and development and/or the advancement and appreciation of the arts

Research and development and/or the advancement and appreciation of the arts

1. The permanent scientific and artistic staff assigned to the degree programme is involved in the private university's relevant research and development activities.

The CEU PU's Academic Handbook, which was provided in the application materials, outlines the governance structure of CEU PU. It shows that academic staff members are represented in CEU PU's senate, which makes recommendations to the Board of Trustees. In the application material, CEU PU provided CVs and faculty contracts of all staff members involved in the programme. These CVs demonstrate that the permanent staff members are very active researchers and from day one, students are taught by well-known experts who have a high reputation and are often full professors and specialists in their respective fields. For example, staff members are leaders of important research institutes concerning social network analyses and provide examples of the integration of social science and methods that is aimed to be achieved in this bachelor programme. Note in addition that many staff members have or have had affiliations at highly ranked institutes all over the world, including the University of Oxford, and Columbia University, NY. Furthermore, some staff members provide services as consultants concerning data science for important organisations, thereby enhancing the contact to important players in research & development as well as to potential employers for alumni of the BA in Quantitative Social Sciences.

The experts consider this criterion to be **fulfilled**.

Research and development and/or the advancement and appreciation of the arts

2. *The (planned) research performance of the permanent scientific or artistic staff assigned to the degree programme are in accordance with the university's approach and the respective subject culture.*

In the application material, CEU PU provided CVs, including lists of publications, of all staff members involved in the programme. These CVs demonstrate that staff members are research active in accordance with the university's approach and the subject culture. The expertise of the staff is broad and covers all the aspects from data science and mathematics to social sciences. The structure of the BA in Quantitative Social Sciences, which includes research seminars and a dissertation, is set up in a way that students straightforwardly benefit from the research activities of staff members. In discussions during the site visit, it was evident that the teaching staff shows a very high level of commitment to the programme. Furthermore, the experts learned that most staff members are highly experienced in supervision of students at all levels of their education (student assistant, BA, Master, PHD, up to supervision of junior staff).

The experts consider this criterion to be **fulfilled**.

3.7 Assessment criterion § 17 (7): Co-operations

Co-operation

The private university has envisaged co-operation projects with higher education partners and, if applicable, partners outside the higher education area in Austria and abroad which match the degree programme's profile and furthermore promote the mobility of students and staff.

In the application material, CEU PU outlines the provided possibilities for student and staff mobility. Students of this programme will be allowed to participate in Erasmus exchanges. Additionally, the EU COST programme is stated to enable students and researchers to take part in cooperation projects. The Department of Network and Data Science is also consortium partner in several EU grants, including an ERC grant, which all have a mobility component. Also, the department has a well-established collaboration network, which includes universities around the world. More locally, CEU PU became a member of the Complexity Science Hub Vienna, which offers direct cooperation in research and teaching in the field of the programme with nine other Austrian universities and research sites. These may offer opportunities for students and teachers for participation in research projects.

The expert panel considers the criterion to be **fulfilled**.

4 Summary and final evaluation

The expert panel visited CEU PU on January 28, 2021. Due to the COVID-19 pandemic, the meeting was held online. In summary, the following seven criteria were assessed:

(1) Development and quality assurance of the degree programme

The BA degree programme has been developed after close consultation of the staff, target group and labour market experts/relevant stakeholders. CEU PU demonstrated that a clearly

structured procedure was followed. The institutional quality assurance is very elaborated and follows standardized rules, but also providing room for the development of a community, where the means and goals are fruitfully discussed.

(2) Degree programme and degree programme management

The BA programme Quantitative Social Sciences fits very well with the profile of CEU PU and the aim to develop also a master programme as a follow up study. The programme covers important aspects of social theory, environmental sciences as well as data science and mathematics. The courses are well designed, both didactically and regarding their content. They encourage students to participate and allow for an integrative understanding of theory and practice. The workload and examination methods associated with the courses as well as the thesis are adequate. The organizational structures needed are all in place and facilities are excellent. Institutional and staff commitment are high.

(3) Staff

The programme's staff-student ratio is very favorable. Staff members are excellent researchers and the close association between research and teaching is an asset of the programme. In addition, the university has programmes for important HR aspects and development.

(4) Funding

Funding is provided by way of an endowment and a grant from the Open Society Foundations.

(5) Infrastructure

The infrastructure is abundant, all technical and research equipment is advanced and available.

(6) Research and development and/or the advancement and appreciation of the arts

The institution has a clear policy of granting research time to staff in order to guarantee both scientific and individual development and performance. Workload is demanding but manageable, given the student-staff ratio of 10:1.

(7) Co-operations

CEU PU is already involved in ample co-operation projects with higher education partners in Austria and internationally as well. Opportunities for staff and student mobility are provided and the Department of Network and Data Science is partner in attractive EU projects. Last but not least, the cooperation network is large and includes universities all over the world.

The experts consider **all the criteria as adequately fulfilled** and **recommend the Board of the AQ Austria to accredit** the bachelor programme "Quantitative Social Sciences".

Recommendations

While the expert panel was impressed by the way CEU PU organized the programme and by the content of the courses, a couple of recommendations are also in place.

A first recommendation deals with the transparency of the application procedure. The experts recommend allowing applicants access to both the ranking scheme as well as the points they achieved in order to provide additional transparency.

Second, and more important, while the aim to provide an integrative programme of both social science and data science (including computational science etc.) is to be applauded, the experts recommend to closely monitor whether integration is actually achieved and where this can be improved. Considering social science and data science as disciplines with different languages, it might - in the future - not be enough to speak each other's language, but also interaction and mutual communication should be practiced in order to arrive at innovative synergies. A BA programme like the one in Quantitative Social Sciences can be an excellent place to make progress in bringing together these different disciplines. The expert panel sensed, however, that there is a risk that the fields are taught next to each other instead of being integrated with the goal to solve research problems more comprehensively. A suggestion in this regard is to combine the courses more closely, e.g., to develop some forms of co-teaching of social science together with data science.

Related to this recommendation is the observation that the courses in social science (including environmental science) have a less prominent function in the programme than the methods courses. A course of rigorous theory building in social science or on advancement in social science theory and knowledge might also be in place, in addition to the relatively basic reading courses of social thinkers.

A final point of recommendation in this regard touches upon the heterogeneity of the social sciences in itself. Environmental science is quite different from sociology and sociology again differs from political science or economics. Ethics of big data (which is also the name of one of the courses) is not social science at all, but more related to philosophy. It is important to emphasize the commonalities in these fields and avoid that the student's knowledge of social science is scattered.

5 Documents reviewed

- Application of the Central European University Private University from 06.08.2020 in the version of 20.10.2020 for the accreditation of the bachelor programme "Quantitative Social Sciences", to be offered in Vienna.
- Submission of further information from 13.01.2021 prior to the site visit:
 - Further information on the demand for the BA in Quantitative Social Sciences
- Submission of further information from 01.02.2021 and 08.02.2021 following the site visit:
 - Financial Aid Policy
 - additional details regarding the admission procedure