ASIIN Seal

Accreditation Report

Bachelor's Degree Programmes
Soil Sciences
Water Technology
Natural Resource Economics

Provided by
Sultan Qaboos University, Sultanat of Oman

Version: 28.03.2023

Table of Content

A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for [1]	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC)[2]
Bachelor of Science in Soil Sciences	Bachelor of Science in Soil Sciences	ASIIN-Seal	-	11
Bachelor of Science in Water Technology	Bachelor of Science in Water Technology	ASIIN-Seal	-	03
Bachelor of Science in Natural Resource Economics	Bachelor of Science in Natural Resource Economics	ASIIN-Seal	-	06, 08
Date of the contract: 02.06.2019 **Submission of the final version of the self-assessment report:** 22.04.2021 **Date of the onsite visit:** 03.-05.05.2021 **at:** Due to continuing travel and safety restrictions caused by the Covid-19 pandemic, the audit was carried out digitally in agreement with the principal decision of the Accreditation Commission for Study Programmes.				
Peer panel: • Prof. Dr. Wolfgang Kath-Petersen, University of Applied Sciences Cologne • Prof. Dr. Renatus Widmann, University Duisburg-Essen • Maike Laurenz (Student of University of Applied Science Bochum)				

[1] ASIIN Seal for degree programmes; EUR-ACE® Label: European Label for Engineering Programmes; EUR-Inf®: Label European Label for Informatics; Eurobachelor®/Euromaster® Label: European Chemistry Label

[2] TC: Technical Committee for the following subject areas: TC 03 - Civil Engineering, Geodesy and Architecture; TC 06 - Industrial Engineering; 08 - Agriculture, Nutritional Sciences and Landscape Architecture; TC 09 - Chemistry; TC 10 - Life Sciences; TC 11 - Geosciences; TC 12 - Mathematics; TC 13 - Physics.

Representative of the ASIIN headquarter: Tanja Kreetz, M.A.	
Responsible decision-making committee: Accreditation Commission for Degree Programmes	
Criteria used: European Standards and Guidelines as of 10.05.2015 ASIIN General Criteria, as of 28.03.2014 Subject-Specific Criteria of Technical Committee 03 – Civil Engineering, Geodesy and Architecture (as of 28.09.2012), 06 – Industrial Engineering as of 20.09.2019, 08 – Agriculture, Nutritional Sciences and Landscape Architecture as of 27.03.2015 and 11 – Geosciences as of 09.12.2011	

B Characteristics of the Degree Programmes

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF[3]	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Soil Sciences	Bachelor of Science (B.Sc.)	Soil Sciences	Level 6	Full time	No	8 Semester	126 CrH.	Fall of every year, since 1986
Bachelor of Science in Water Technology	B.Sc	Water Technology	Level 6	Full time	No	8 Semester	126 CrH.	Fall of every year, since 1996
Bachelor of Science in Natural Resource Economics	B.Sc	Natural Resource Economics	Level 6	Full time	No	8 Semester	125 CrH.	Fall of every year, since 2008

For the Bachelor's programme Soil Sciences the institution has presented the following profile in the self-assessment report:

"The vision of the Soil Sciences programme is to be a regionally leading program committed to provide excellence in teaching, research, community service and outreach regarding issues related to sustainable management of soil and water resources. The mission of the programme is to graduate students with skills and knowledge in the discipline of soil sciences enabling them to tackle emerging issues and crises related to soil and water for sustainable environments and food security and to inculcate in them the ability to perform professional duties in government organizations, private companies and research-teaching units in the Sultanate of Oman."

For the Bachelor's programme Water Technology the institution has presented the following profile in the self-assessment report:

"To graduate students with skills and knowledge in the discipline of water technology enabling them to tackle emerging issues and crises related to sustainable management of wa-

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

ter resources and to inculcate in them the ability to perform professional duties in government organizations, private companies and research-teaching units in the Sultanate of Oman. (…) (T)he program exposes the students to sophisticated skills and technologies of identifying, sampling, measuring, modelling and interpreting water quality and quantity parameters and characteristics. The program incorporates the research-teaching nexus as a paradigm accentuating the synergetic nature of water resources, as a discipline. Integration of various disciplines is practiced so that graduates of the program have the clear understanding of Integrated Water Resources Management (IWRM)."

For the Bachelor's programme Natural Resource Economics the institution has presented the following profile in the self-assessment report:

"The BSc program offers a wide and relevant range of subjects that provide students with the knowledge in economics and problem solving skills. The students could also enhance their business skills by following a Minor in Business Administration offered by the College of Economics and Political Sciences. They could also undertake the study of a minor field of study from other Departments of CAMS. Our graduates are employed in the Ministry of Agriculture and Fisheries Wealth, Department of Planning and Investment, the Department of Statistics, International Trade and Marketing, Ministry of Finance, etc. Our graduates are also working in the private sector in activities where commercial and economic analysis are required (commercial banks, consultancy firms, import and export companies, food processing and services firms among others)."

C Peer Report for the ASIIN Seal

1. The Degree Programme: Concept, content & implementation

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

Evidence:

- Oman National Qualification Framework
- Module Handbook for all degree programmes
- Objective-Module Matrixes for all degree programmes
- Self-Assessment Report
- Website
- Discussions during the audit

Preliminary assessment and analysis of the peers:
The peers refer to the Subject-Specific Criteria (SSC) of the Technical Committees as a basis for judging whether the intended learning outcomes of the Bachelor's degree programme Water Technology, the Bachelor's degree programme Soil Sciences and the Bachelor's degree programme Natural Resource Economics, as defined by SQU, correspond with the competences as outlined by the SSC. They come to the following conclusion:

The auditors acknowledge that the objectives of the Bachelor programmes are clearly and plausibly described and defined, matching the qualification requirements and learning outcomes for each of the three Bachelor programmes. They observe that students and teaching staff are duly informed about the study programmes. The latest degree and study plans for the Soil Sciences and Water Technology BAs are available on the website. Access to the latest study plans should also be enabled for the BA in Natural Resources and Economics, to ensure visibility of the programme and its content for a wider public.

The qualification objectives of the Soil Sciences programme should ensure that graduates are able to tackle emerging issues and crises related to soil and water for sustainable environments and food security and to inculcate in them the ability to perform professional

duties in government organizations, private companies and research-teaching units in the Sultanate of Oman.

The qualification objectives of the Water Technology programme should ensure that graduates are able to tackle emerging issues and crises related to sustainable management of water resources and to inculcate in them the ability to perform professional duties in government organizations, private companies and research-teaching units in the Sultanate of Oman. Graduates will be qualified to measure, model and interpret water quality and quantity parameters and characteristics.

The qualification objectives of the Natural Resource Economics programme should ensure that graduates acquire skills in economics and problem solving relevant for potential future employment in the Ministry of Agriculture and Fisheries Wealth, Department of Planning and Investment, the Department of Statistics, International Trade and Marketing, Ministry of Finance, in the private sector or as entrepreneurs.

Learning outcomes are viable and meet the ASIIN subject related requirements. The auditors point out that solid structures to regularly renew the study objectives are in place, ensured through regular evaluations and quality assurance procedures and feedback loops. Apart from the relevant internal actors (research and teaching staff, students), external stakeholders such as industry and public authority representatives are actively engaged in the development of the programme objectives. There are sufficient structures in place, securing that objectives are regularly reflected and updated, to duly meet the sector specific and labour market demands. The peer group is convinced by the fact that ministries and industry partners regularly provide feedback on the programme objectives and contents, such as in the role as advisory board members but also through joint collaboration projects and consultations, to ensure continuous adaptation and fine-tuning of objectives, in correspondence with changing demands of the domains. Alumni surveys are regularly conducted and provide feedback also from graduates.

To sum up, the learning and qualification objectives are clearly specified and there are sophisticated structures installed in all three programmes to adequately ensure that the latest research developments as well as labour market requirements are taken into consideration in the definition of the objectives.

During the visit they request information about the employability chances and graduates' acceptance on the labour market related with their training experiences and skills portfolios. Even though the reviewers mention that the mandatory period for the obligatory internships is rather short (at least 2 months for Soil Sciences and Water Technology, 3 months for Natural Resource Economics), the experts welcome the flexibility of the depart-

ments and faculty and often also of the collaborating industry and public authority partners, to extend the period on demand. In order to enhance the period of exposure to the practice and intensified project-based experiences, the auditors suggest a longer mandatory internship duration (e.g. four to six months). They remark that students could also more easily win hosting organisations for their Bachelor thesis.

The review visit has furthermore shed the light on the currently difficult employment situation against the background of the economic crisis. The auditors appreciate that faculty members in all three programmes are creating the best possible conditions for their students, shown by regular adaptation processes.

Criterion 1.2 Name of the degree programme

Evidence:

- Self Assessment Reports
- Degree Programme and Study Plans
- Discussions during the audit

Preliminary assessment and analysis of the peers:
The auditors identify that the degree names duly match the intended study aims and learning outcomes for all three Bachelor programmes. The self-report states and the programme coordinators report and confirm, that the names are continuously adapted to the changing labour market and scientific developments and undergo a needs-oriented update. With regard to the National Resource Economics programme, the programme coordinators mentioned that the name of the degree is so far not widely known to employers. Through the increasing exposure of graduates to the industry and public sector, the study programme is however expected to eventually benefit from increasing visibility and acceptance.

The auditors are convinced that the three study programme will continuously evolve also in the future and that name adaptations will be made whenever required, in order to secure a good fit between programme objectives and degree expectations.

Criterion 1.3 Curriculum

Evidence:

- Degree Programmes and Study Plans

- Course Syllabus/Outlines
- Objective-Module Matrixes for all degree programmes
- Self-Assessment Report
- Discussions during the audit

Preliminary assessment and analysis of the peers:
The curricula of all three Bachelor programmes are well designed and appropriately structured in order for students to successfully reach the intended learning and qualification objectives. The course plans are duly substantiated and are based on mandatory and elective modules which are clearly defined and specified in terms of the knowledge, skills and competencies to be acquired by the students and the particular ways of how to attain them.

All three degree programme comprise modules covering the university requirements, university electives, college requirements, college electives as well as programme requirements and programme electives (Soil Sciences, Water Technology) and department requirements and department electives (Natural Resources Economics), respectively.

To meet the programme requirements in Soil Sciences students must undertake 19 subject-specific courses consisting of an introduction to soils and water, environmental soil chemistry, general hydrology, arid zone hydrology, soil and water conservation, soil physics, soil genesis and classification, hydropedology, soil and water fieldwork, geology, and an internship, among others. The electives include economics and extension, fluid mechanics, transport of chemicals in porous media, and a special topic in soil and water, among others. Appendix 4 presents the course syllabi for all Soil Sciences and related courses offered by the SWAE department. Soil sciences graduates will be enabled to identify, sample, measure, model and interpret soil parameters and characteristics.

To meet the programme requirements in Water Technology students must undertake 19 subject-specific courses, including an introduction to soils and water, elements of hydrology, fundamentals of fluid mechanics, water quality, irrigation principles, transport of chemicals in porous media, water control and supply, water treatment, groundwater hydrology, design and management of irrigation systems, water resources management and legislation, and an internship, among others. In addition, there are 13 courses offered as electives, among which students choose 7 courses. Students must choose 7 courses out of 13 elective courses such as geology, geochemistry, desalination, arid-zone hydrology, management of salt-affected soils, among others.

To meet the programme requirements in Natural Resource Economics students must participate in various courses comprising Macroeconomic Policy and Natural Resources, Intermediate Microeconomics for Natural Resource Management, Production Economic, Economics of Fisheries Management, Marketing of Agricultural and Fisheries Products, Agricultural and Food Policies, Agribusiness Management, Natural Resource and Environmental Economics, Applied Econometrics, Agricultural Finance, International Agricultural Trade, Economic Development, Benefit Cost Analysis, The Management of Natural Resource Projects, and an internship, among others.

The complete list of compulsory and elective modules is included in the course outlines.

The auditors identify an altogether good mix of different teaching and learning methods and scenarios, enabling students to acquire the necessary theoretical knowledge, scientific skills and competences in order to properly prepare them for the labour market. The group acknowledges that intense practical learning phases are foreseen in the laboratories of the college as well as of the collaboration partners. Supervision of the students in the laboratories is guaranteed by technical assistants and the respective teaching staff. Students are duly trained for working in the laboratories which they perform on an individual basis as well as in groups. Integrated modules with practical courses and lectures offer the opportunity to effectively synchronise theory and practice.

The auditors appreciate that the programmes are taught in English, which is expected to increases job opportunities and international mobility prospects for students and graduates.

Criterion 1.4 Admission requirements

Evidence:

- Self-Assessment Reports
- Undergraduate Academic Regulations
- Discussions during the audit

Preliminary assessment and analysis of the peers:
The admission regulations are defined in Part A of the Undergraduate Academic Regulations in line with the SQU general admission requirements and in coordination with the Oman Higher Education Admission Centre. The self-assessment reports duly specify the subject-specific entry requirements for all three Bachelor programmes. The auditors agree that requirements and procedures are sufficiently binding, applicable to all applicants and

in line with their expected learning outcomes. The programme coordinators provide relevant details about how applicants can compensate for individual admission requirements they do not yet fulfil, for instance by extending the standard period of the 1-year foundation programme to another year e.g. in order to meet the language requirements needed for successfully participating in the English-taught Bachelor programmes.

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

1.1 Objectives and learning outcomes of a degree programme and 1.3 Curriculum

Related to the suggested extension of the internship duration as formulated in the accreditation report, the peers welcome the plan of the College to reflect on the internship duration and options of extending it with the College's and Departments' Advisory Boards.

In summary, the auditors assess this criterion as fulfilled.

2. The degree programme: structures, methods and implementation

Criterion 2.1 Structure and modules

Evidence:

- Self-Assessment Reports
- SQU Undergraduate Regulations
- Degree Programmes and Study Plans
- Discussions during the audit

Preliminary assessment and analysis of the peers:
After admission to the university, students spend typically one year, sometimes more in a Foundation Program to bring their level of English, mathematics and information technology skills to the standards required to study in English. Although students can attempt a challenge examination at the beginning of the academic year, most spend a minimum of one, more typically two and up to four semesters in the foundation program before being admitted to their "credit" programs in the different Colleges. Students who are unable to meet the minimum learning outcomes at the end of the maximum two-year foundation programs are required to withdraw from the University.

After admission into the different colleges, the academic year is divided into two 15-week semesters: spring (February-May) and fall (September-December). A shorter (seven weeks) semester is offered in the summer with a limited choice of courses for students who are in need of summer courses. The need being defined as a need for graduation, a need for graduation, a need for prerequisite or an extreme delay towards the ideal study plan.

During the first few semesters, students generally take University and College requirement courses as well as three college electives, one of them focusing on their future choices of a major. After taking 23 credits of courses, students should choose one of the ten majors offered by the college, among them the three study programmes up for accreditation. The mechanism of assignation to a major is based on the choice of the student, the grade obtained for at least one science course as well as the cumulative Grade Point Average. It is only at this point that students leave a common core and enter fully into their respective degree programs.

The three Bachelor programmes are in correspondence with the accreditation requirements concerning the modular structure of the programmes, comprising teaching and learning elements. The course structure in all three programmes enables that the overall subject-specific learning and qualification objectives and outcomes can be reached. At the same time, individual specialisations are foreseen in all three programmes, particularly in the context of the elective courses, of the student mobilities and practical work experiences mandatorily gained through internships and voluntarily through additional project-related work.

The auditors recognize that practical work experience can particularly be gained during the compulsory internships, which are an integral element of the curricula of all three study programmes. They suggest that extending the internship periods in collaboration with the hosting organisations would be particularly beneficial and would maximise the learning outcome of the students.

Laboratory and field visits are a clearly defined and explicitly integrated element in different courses of the Water Technologies degree programme, for which learning objectives are defined in sufficient detail. In Water Technology, each year, the academically best (highest GPA), Water Technology student is selected to attend overseas internship training in respected academic institutions.

The Soil Sciences programme as well underlines the importance of field trips, which are due to restricted resources and lacking time slots to visit the fields confined to the Soil and

Water Winter Tour course but enriched by on-campus field trips to the Agricultural Experiment Station enhancing the students' competences in soil profile description, soil survey and site description.

The Natural Resource Economics BA programme foresees as part of the curriculum that students are sent to the industry for an Internship Training course of 3 months.

Based on the assessment of the visit, the peers suggest that it would be beneficial for enhanced employability prospects if the departments launch discussions with the industry about their willingness to initiate graduate trainee programmes.

The experts furthermore recommend that conditions and structures for internationalisation should be further strengthened and if possible should be expanded, in order to generate further chances for international student mobility, internships and final thesis projects with collaborating partner organisations abroad.

In addition, the auditors recommend the introduction of advanced subject-specific English courses also in later semesters in order to contribute to improved presentation skills in English.

Overall, the curricula are convincingly structured and allow students to successfully complete the degree without exceeding the regular course duration.

Mobility

Based on the discussions during the audit, the peers gather that international mobility of the students is not yet one of SQUs main priorities and should thus be further expanded in the near future. Currently, mobility is limited to those students with the highest GPA. In addition, only the mandatory internship can be taken abroad. The peers strongly recommend to improve the opportunities for students to complete a theoretical semester or the internship abroad without any prolongation of their studies.

Criterion 2.2 Work load and credits

Evidence:

- Self-Assessment Reports
- Degree Programmes and Study Plans

Preliminary assessment and analysis of the peers:

A standard workload of a regular student at SQU is 15 credit hours per semester. This corresponds thus approximately to 4 (contact hours per week) x 15 Weeks x 5 courses (15

credits/ 3 credits per course) = 300 contact hours per semester, split equally between lectures and practicals (laboratory, seminars, tutorials, etc.). Students who are academically excellent (GPA>3) can request to take 18 credits per semester if courses are available in their programs and graduating students (students in their last semester) can register, with the approval of their academic advisor, a maximum total load of 21 credits if this extra course load allows them to graduate.

Without probation periods or delays, students will normally complete the degree programme in 8 semesters following their arrival in the College (after the Foundation Programme) and approximately 6 semesters after entering a major. Students can shorten this by taking additional credits during the summer semesters (Research Project, Internship, Statistics...) or taking an overload during some of the regular semesters.

The estimated time budgets are realistic and enable students to complete the degree without exceeding the regular course duration. In the one week prior to the exam period, students report of a huge amount of work (regular course work in addition to exam practicing endeavors) and mention they would benefit from a 1-week break in between the course work and exam weeks in order to enable sufficient time for recapitalization of course contents relevant for examination.

The current Omani credit point system does not take into account the actual amount of work required by the students. The allocation of specific number of credits to each course is based on the contact hours. It is required that the learning time students spend outside the classroom during self-study (preparing for essays, reports and presentations, laboratory work, collecting materials, studying for exams) should be considered. The university and programme representatives report that the Oman Accreditation Agency is currently in the process of restructuring the system to include the amount of self-study.

The auditors highlight the importance of aligning the university's credit system with the ECTS, which will play an important role also for the intended internationalisation. The auditors suggest that an ECTS conversion can be easily introduced even prior to the amendment of the Omani credit point system at national level, by indicating the overall workload (comprising attendance and self-study) per module in each for the Bachelor programmes under consideration in order to fulfil the request of informing of the full workload per credit.

No irregularities or a overly high numbers are identified concerning the regular study duration and the student drop out rate.

Credit points are foreseen for the wide majority of courses. According to the degree and study plans of the three programmes there is however a lack of credit points allocated to

the college requirement course “Introduction to Agricultural and Marine Sciences” which is required for all courses forming part of the curriculum.

Criterion 2.3 Teaching methodology

Evidence:

- Undergraduate Academic Regulations
- Self-Assessment Report
- Course Syllabus/Outlines
- Discussions during the audit

Preliminary assessment and analysis of the peers:

According to the auditors it is clearly visible from the self-assessment reports and the auditing visit that the existing teaching methods and instruments appropriately support the students in achieving their learning outcomes for each study module in question. The peers identify a good balance between attendance-based learning and self-study periods as well as between theory-based and practical learning elements. Various learning scenarios are applied, including theory and research oriented undergraduate courses, internships, field trips (the latter for Soil Science and Water Technology) as well as transferable research and soft skill acquisition through teamwork, presentations, reports, contests and conference contributions. The peers appreciate the fact that students are involved in projects and collaboration-based research by the faculty, providing concrete chances for implementing their theoretically gained knowledge. This is also the case for the individual and group-based laboratory work (in case of Soil Science, Water Technology) with instructions and guidance provided by technicians and teaching staff, and computer work (for all three programmes). Hands-on experience is particularly also gained in the context of the internships and research and teaching assistantships and the fact that students have to write reports.

Criterion 2.4 Support and assistance

Evidence:

- Self-Assessment Reports

Preliminary assessment and analysis of the peers:

According to the auditors the existing support structures are clearly provided, both in terms of quantity and quality. The student feedback has demonstrated that students are highly satisfied with the support provided in terms of (individual and group) mentoring, supervision and help provided in courses and research projects as well as by technicians in the

laboratories. The fact that students can request additional support also from staff outside their own courses or projects is highly appreciated, e.g. by the offer to reach out to additional teachers and researchers working on their topic, especially relevant in interdisciplinary endeavours. Based on the input by the industry and public authority representatives the role of support, the peers agree that mentoring and supervision during internships and research projects is regarded as an additional important support mechanism in the process of qualifying the students. They find that during the pandemic the teaching staff has easily adapted the learning methods and channels to the new requirements and successfully developed alternative teaching forms (through Moodle courses, collaborative learning through Google Meet, learning videos, YouTube videos, lab video sessions, scheduled lab visits in small groups etc.) so that students reach their learning objectives also under pandemic circumstances. In terms of the existing support structures the examiners conclude that all three study programmes enable students to complete their programme in the expected quality and within the scheduled time frame.

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

2.1 Structure and modules

The auditors appreciate that SQU will discuss potential options to increase the duration of internships in order to maximise the student experience and to enhance employability internally (with the SWAE Board, the College Assistant Dean for Training and Community Service, the College Board, the SQU Academic Council and the University Council).

The peers also acknoweldge that the department will organise a panel discussion with the members of the Programmes' Advisory Board to explore ways to potentially launch graduate trainee programmes together with the industry. They appreciate that SQU will seek advise from their industry partners and collaborators, and will reflect on extending the training programme developed with the Ministry of Water to other degree programmes.

SQU provides statistics of student mobility for the last five years (Pre-Covid-19). The auditors note that the list is too generic and lacks specific information for the degree programmes concerned. They acknowledge that SQU will discuss the suggestion at college and departmental level. Also, the university is currently in the process of preparing opening up undergraduate programmes also for international students.

2.2 Workload and aligment with the ECTS

Concerning the need to make explicit also the self-learning times required by students in each module, the peers welcome that the department will raise this issue with SQU central

administration. The peers stress that it is not mandatory for SQU to restructure its current credit system in line with the ECTS. They state that it is however needed to be specific about the work load allocated for attendance based as well as for self-study learning periods in each module, including in the official module descriptions openly accessible for students and relevant stakeholders. They adhere to their suggestion to introduce an ECTS conversion, specifying the overall work load (comprising both attendance and self-study) for each module and each of the Bachelor programmes under consideration.

There is a lack of credits allocated to the college requirement course "Introduction to Agricultural and Marine Sciences".

The peers welcome the department's plan (to discuss the suggestion to enable a week explicitly for exam preparation with the College Board, Register Office, Academic Council and University Council). They also welcome SQU's action plan introducing new guidelines with two timeslots to improve students' conditions related to exam preparation. The peers suggest to find and implement appropriate ways and solutions to overcome existing problems related to the limited times for exam preparation.

To sum up, the auditors assess this criterion to be partially fulfilled.

3. Exams: System, concept and organisation

Criterion 3 Exams: System, concept and organisation

Evidence:

- Undergraduate Academic Regulations
- Undergraduate Academic Assessment Policy
- Examination Regulations
- Self-Assessment Reports
- Degree Programme and Study Plans
- Course outlines/Syllabus

Preliminary assessment and analysis of the peers:
In 2017, SQU has adapted a unifying Undergraduate Academic Assessment Policy, aiming at providing a sound and fair assessment and grading of its students throughout the institution. Based on the achievements of learning outcomes, the policy encourages the different programme managers (Dean, Head of Departments) to develop tools that ensure alignment between learning outcomes and assessments. In addition, it provides guidelines on

the relative weight of the various assessments (no single component of a course evaluation should exceed 60% of the final mark) and when a final examination is chosen to be part of the course evaluation, it should exceed 40% of the final grade. A minimum of two assessment methods should be used for each course. The Policy also provides in its appendices various methods of standard-setting and grade calculation.

The examination period that concludes each of the two main semesters (Spring, Fall) lasts two weeks (10 days with one weekend) whereas the summer examination period is only one week long (as there are fewer courses offered). Because students take 4 to 6 courses per semester, they have thus 4-6 examinations typically spread over the two week examination period. The Undergraduate Academic Regulation also provides indications on the scheduling process (Centralized by the Deanship of Admission and Registration) and states that students should not have more than two examinations per day and no more than three examinations in two successive days.

The Degree and Study plans are to a wide degree sufficiently specific and concretely inform about the course codes, titles, credits, prerequisites, equivalents and additional details whenever required. Details about the course contents, expected learning outcomes, assessment and marking schemes as well as the students' responsibilities are concretely described in the course outlines and syllabus.

The auditors acknowledge that there is a clear structure for examination. Study modules contribute to well-defined study and learning outcomes, for which a specific set of performance indicators is provided for the three programmes examined. The students' knowledge, skills and competencies are appropriately assessed in the courses, in correspondence with the learning objectives and outcomes. There is a suitable and diverse structure of exams, to test theoretical knowledge as well as research and analytical skills and capabilities. The peers regard the combination of different examination forms – comprising exams, quizzes, lab reports, project work, assignments, discussions, debates and presentations, among others – as suitable formats for reaching the assessment objectives for the specific types of undergraduate courses.

They confirm that specific forms of assessment are duly defined for each course and agree that all students are well informed about the form of assessment and are provided with sufficient details about the requirements to pass the course. The rules for re-sits, disability compensation, illness and other circumstances are written down in the SQU Undergraduate Academic Regulations are transparent to all stakeholders.

In the course of the visit, the students concede that exam procedures and regulations are generally well communicated to them, however they mention they would benefit from improved scheduling in terms of integrating a week explicitly devoted to the preparation for exams in order to have more time to revision.

Based on the course outlines, the auditors understand that the students are sometimes overwhelmed by the amount of exams they have to take on a weekly basis and advice SQU to limit its amount. Several courses have several examination forms relevant for grading, which – given that students are taking five to six courses per semester on average – accumulates to an exceedingly high workload. They request that the amount of exams should be reduced.

The auditors also critically comment on the fact that a final project work is solely offered on an optional basis, in case of Soil Sciences and Water Technology in the context of the Major Elective course “Research Project in Soils, Water & Agricultural Engineering” and in case of the Natural Resource Economics Bachelor in the context of the Departmental Elective course “Research Project in Natural Resource Economic”.

According to the interviewed students and graduates, a final thesis is regarded as particularly advantageous from a career perspective. They share their experience that employers are regularly asking students about their final thesis, particularly during job interviews. The students agree that a final thesis would deepen their skills and competencies and would be beneficial when demonstrating their study-related qualifications.

The reviewers observe that in the exemplary student reports and exam papers as part of the supporting documents, a final thesis that meets international standards for independent scientific student work is missing. They conclude that an essential element is missing in the current setup of the Bachelor programmes, and that a final thesis must be added as a compulsory element into the curricula. This is expected to open doors for enhanced international student and graduate mobility for academic and professional purposes.

Marking procedures are transparently described in the course outlines and are based on well-defined, plausible criteria.

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

The auditors acknowledge that in addition to the SQU Undergraduate Academic Assessment Policy highlighted in the report, SQU reports that CAMS through the Staff/Students Liaison Committee do meet with students’ representative twice per year (November and April). It takes into consideration all revealed student comments. It is worth noticing, that the college has adapted a unified policy to manage the online assessment during the Covid-

19 Pandemic. The peers uphold their suggestion that the amount of exams should be reduced.

The auditors assess this criterion as mostly fulfilled.

4. Resources

Criterion 4.1 Staff

Evidence:

- CVs of Faculty and Staff for all degree programms
- Academic Staff Performance Report
- Contract Renewal Form
- Self-Assessment Reports
- Discussions during the audit

Preliminary assessment and analysis of the peers:
The qualifications, scientific orientations and skills of the teaching staff are clearly identifiable the documents provided, which contributes to a successful implementing of the courses. The faculty staff members have demonstrated international track records, with longstanding experience and sound expertise and matching research outputs in the respective fields of studies, feeding well into the study programmes. There are explicit staff regulations and recommendations for faculty members to spend training and research stays abroad, which is well appreciated by the peers.

Overall, the auditors confirm that the staff has the right skill set in order to meet the teaching demands requested to ensure high quality teaching and training for the Bachelor students. During the visit they acknowledge that there is a good balance between research, teaching and administrative tasks. They do not identify major risks potentially impeding a responsible execution of the services offered to students. They are also convinced that the research conducted by the faculty duly matches the training requirements of the students, particularly through the practice-oriented elements in the curricula and by involving students in research projects. Last but not least, the auditors are impressed by the positive and solution-focused mindedness of the faculty, and welcome the collaborative working atmosphere between staff members, evidently willing to create the best conditions to meet the learning requirements of the BA students.

Criterion 4.2 Staff development

Evidence:

- Self-Assessment Reports
- Website

Preliminary assessment and analysis of the peers:
Continuous staff development is ensured by the Center For Excellence In Teaching and Learning of SQU, offering different types of trainings to encourage targeted pedagogical practises in order to maximise students' engagement and learning outcomes. Further teaching evaluations are regarded as useful mechanisms to monitor and advance the teaching skills of the staff based on a peer-to-peer approach. The visit has brought to the surface that online learning is regarded as an additional channel for the acquisition of essential online teaching skills which became indispensable during the pandemic. Annual reports focusing on teaching evaluations are quality assurance mechanisms in place, which allow individual teaching staff members to seek improvement of their skills whenever needed.

Criterion 4.3 Funds and equipment

Evidence:

- Self-Assessment-Reports
- Documentation of resources and facilities
- Discussions during the audit

Preliminary assessment and analysis of the peers:
Following the assessment of the self-assessment reports and supporting documents, videos and photos as well as the online meeting, the auditors notice that suitable and high-quality infrastructure and equipment are guaranteed for all three programmes. They acknowledge the SQU policy to share all technical resources and equipment among colleges and programmes in order to act flexibly when supporting the students' projects, even in case of limited capacities. The same counts for the laboratory places for which a transfer to other programmes' places is enabled in case of potential overbookings or lack of spaces. A good balance between running experiments and working in laboratories in group and independent self-study is also recognised by the peers. Sound structures are in place to train the students in terms of safety regulations and instructions.

The discussion with the students demonstrates their wish for an extension of laboratory places. The auditors recommend the instalment of further places if the budget situation allows, in order to facilitate and improve the laboratory work experience for the students.

According to the auditors, access to the SQU library, to electronic scientific and educational resources, the electronic library system, including recent publications needed for the study and research is appropriately enabled for all students.

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

4.2 Staff development

The reviewers appreciate that in addition to the Center of Excellence in Teaching and Learning, continuous staff development is ensured also by the Centre for Educational Technology and the Center for Human Resources Development.

The auditors assess this criterion as completely fulfilled.

5. Transparency and documentation

Criterion 5.1 Module descriptions

Evidence:

- Degree and study plans
- Self-Assessment report
- Discussion during the audit

Preliminary assessment and analysis of the peers:
The module descriptions are duly differentiated and sufficiently detailed in terms of identification codes, persons in charge, teaching methods, workload, credit points, expected learning outcomes, contents, planned use/applicability, admission and examination requirements, forms of assessment as well as the recommended literature for each module.

Criterion 5.2 Diploma and Diploma Supplement

Evidence:

- Sample of the certificate and transcript of records
- Self-Assessment Report
- Discussion during the audit

Preliminary assessment and analysis of the peers:

There is an absence of the Diploma Supplement in the documents provided, which must become a complementary element of the degree certificates, providing information on the student's qualification profile and individual performance as well as the classification of the degree programme with regard to its applicable education system. Graduates will be able to benefit from this internationally recognized, standardized document as it enables international comparability of study programmes and qualifications, and will therefore boost the recognition of the academic qualifications and degrees beyond national boundaries. For the students the Diploma Supplement is thus of added value in terms of facilitating academic and professional mobility.

Criterion 5.3 Relevant rules

Evidence:

- Self-Assessment Report
- SQU Undergraduate Academic Regulations
- Discussion during the audit

Preliminary assessment and analysis of the peers:

The auditors confirm that the rights and duties of both the university and the students are clearly defined and binding. Availability and free accessibility of all relevant information and regulations related to the study process, the access to the programme, the final degree, examination, quality assurance etc. will be guaranteed for all stakeholders, and is formulated in the course language English as well as in Arabic.

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

5.2 Diploma supplement

The auditors appreciate that SQU central administration will deal with the requirement of issuing diploma supplements to the BSc students. They welcome that will be discussed at

the college and departmental levels and uphold their requirement that SQU must issue a Diploma Supplement to each graduate student.

To sum up, the auditors assess this criterion as mostly fulfilled.

6. Quality management: quality assessment and development

Criterion 6 Quality management: quality assessment and development

Evidence:

- Academic Policy Review Policy
- Examples of Evaluation Forms
- Course and Teaching Survey Summaries
- Self-Assessment Reports
- Appendix: Soil Water Joint Advisory Board Meeting 2017
- SQU Undergraduate Regulations
- Discussion during the audit

Preliminary assessment and analysis of the peers:
The auditors acknowledge that there is a comprehensive quality assurance system in place at university level, at college level and department level, which is well elaborated in the Self-Assessment Reports and supporting documents as well as further specified during the online visit.

There is clear evidence provided for continuous quality assessment procedures for all three programmes. Programmes not yet accredited go through an internal programme review every five years following the evaluation by this internal Academic Program Review, which was also the case for the reviewed programmes. Courses are also duly evaluated by students based on standard Course and Teaching Survey (CTS) comprising online questionnaires with Likert-scale and open questions every semester.

During the discussion with industry and government representatives and alumni, the auditors get an impression about the manifold practices and ideas for joint collaboration (internships, joint research projects, joint consultations) and involvement of external partners

in the development of the three BA programmes which is appreciated as an important element of quality assurance. The experts welcome the existing structure of Advisory Boards for the college and its departments, comprising independent experts (representatives of the industry and the government) with the mission to regularly review and provide feedback on the academic programmes, on teaching, research, outreach, consultancy, internships as well as the qualification of students and graduates and potential employability issues and to formulate ideas for potential solutions and improvements.

The auditors inquire about the reasons of the university for seeking international accreditation of its BA programme. The programme coordinators convincingly reason in terms of SQU's envisaged enhancement of the programmes' international reputation and its internationalisation processes, also in terms of offering additional chances for international student mobility.

Students and other stakeholders duly take part in the quality assurance process. The outcomes and all measures derived are made known to anyone involved. All methods employed and data analysed are regarded as suitable for the purpose of quality assurance, aiming at continuously improving the quality and of ensuring sustainability of the three programmes.

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

According to the auditors this criterion is regarded as completely fulfilled.

D Additional Documents

No additional documents requested.

E Comment of the Higher Education Institution (02.07.2021)

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

- Statistics of Overseas Internship
- Distance Teaching Regulations and Guidelines
- Workload-Structure

F Summary: Peer recommendations (19.08.2021)

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
BA Soil Sciences	With requirements for one year	30.09.2027	–	-
BA Water Technology	With requirements for one year	30.09.2027	-	-
BA Natural Resource Economicy	With requirements for one year	30.09.2027	-	-

Requirements

For all degree programmes

A 1. (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

A 2. (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

A 3. (ASIIN 3) The number of exams needs to be reduced.

A 4. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

A 5. (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives, intended learning outcomes, the structure and the academic level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Recommendations

For all degree programmes

E 1. (ASIIN 1.3) It is recommended to discuss options to extend the duration of the internships with industry and government representatives.

E 2. (ASIIN 2.1) It is recommended to discuss opportunities for graduate trainee programmes upon finalisation of the BA programme with the industry.

E 3. (ASIIN 2.1) It is recommended to enhance opportunities for international student mobility (internships, writing final thesis at collaborating partner organisations).

E 4. (ASIIN 2.1) It is recommended to integrate advanced subject-specific English courses into the curricula.

E 5. (ASIIN 2.2 and 3) It is recommended to find a solution in order to overcome existing problems related to the limited times students have for exam preparation.

E 6. (ASIIN 4.3) Laboratory places should be extended if the budget allows.

G Comment of the Technical Committees

Technical Committee 03 – Civil Engineering, Geodesy and Architecture (06.09.2021)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the procedure and agrees with the assessment of the peers.

The Technical Committee 03 – Civil Engineering, Geodesy and Architecture recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
BA Water Technology	With requirements for one year	30.09.2027	-	-

Requirements

For all degree programme

A 1. (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

A 2. (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

A 3. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

A 4. (ASIIN 3) The number of exams needs to be reduced.

A 5. (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives, intended learning outcomes, the structure and the academic level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Recommendations

For all degree programmes

E 1. (ASIIN 1.3) It is recommended to discuss options to extend the duration of the internships with industry and government representatives.
E 2. (ASIIN 2.1) It is recommended to discuss opportunities for graduate trainee programmes upon finalisation of the BA programme with the industry.
E 3. (ASIIN 2.1) It is recommended to enhance opportunities for international student mobility (internships, writing final thesis at collaborating partner organisations).
E 4. (ASIIN 2.1) It is recommended to integrate advanced subject-specific English courses into the curricula.
E 5. (ASIIN 2.2 and 3) It is recommended to find a solution in order to overcome existing problems related to the limited times students have for exam preparation.
E 6. (ASIIN 4.3) Laboratory places should be extended if the budget allows.

Technical Committee 06 – Engineering and Management, Economics (02.09.2021)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the requirements and is of the opinion that particularly the requirements for the Bachelor's thesis as well as the workload and the crediting show structural deficiencies in the degree programme, which are so serious that the procedure should be suspended for the time being. Accordingly, the expert committee reformulates three requirements into prerequisites.

The Technical Committee 06 – Engineering and Management, Economics recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
BA Natural Resource Economics	Suspension		-	-

Prerequisites

V 1 (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

V 2 (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

V 3 (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

Requirements

A 1 (ASIIN 3) The number of exams needs to be reduced.

A 2 (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives, intended learning outcomes, the structure and the academic level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Recommendations

E 1. (ASIIN 1.3) It is recommended to discuss options to extend the duration of the internships with industry and government representatives.
E 2. (ASIIN 2.1) It is recommended to discuss opportunities for graduate trainee programmes upon finalisation of the BA programme with the industry.
E 3. (ASIIN 2.1) It is recommended to enhance opportunities for international student mobility (internships, writing final thesis at collaborating partner organisations).
E 4. (ASIIN 2.1) It is recommended to integrate advanced subject-specific English courses into the curricula.
E 5. (ASIIN 2.2 and 3) It is recommended to find a solution in order to overcome existing problems related to the limited times students have for exam preparation.
E 6. (ASIIN 4.3) Laboratory places should be extended if the budget allows.

Technical Committee 08 – Agriculture, Nutritional Sciences and Landscape Architecture (02.09.2021)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discusses the procedure and agrees with the assessment of the peers.

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

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
BA Natural Resource Economics	With requirements for one year	30.09.2027	-	-

Requirements

For all degree programme

A 1. (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

A 2. (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

A 3. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

A 4. (ASIIN 3) The number of exams needs to be reduced.

A 5. (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives, intended learning outcomes, the structure and the academic level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Recommendations

For all degree programmes

E 1. (ASIIN 1.3) It is recommended to discuss options to extend the duration of the internships with industry and government representatives.

E 2. (ASIIN 2.1) It is recommended to discuss opportunities for graduate trainee programmes upon finalisation of the BA programme with the industry.
E 3. (ASIIN 2.1) It is recommended to enhance opportunities for international student mobility (internships, writing final thesis at collaborating partner organisations).
E 4. (ASIIN 2.1) It is recommended to integrate advanced subject-specific English courses into the curricula.
E 5. (ASIIN 2.2 and 3) It is recommended to find a solution in order to overcome existing problems related to the limited times students have for exam preparation.
E 6. (ASIIN 4.3) Laboratory places should be extended if the budget allows.

Technical Committee 11 – Geosciences (02.09.2021)

Assessment and analysis for the award of the ASIIN seal:

The Technical Committee discussed the procedure and agrees with the assessment of the expert group without any changes.

The Technical Committee 11 – Geosciences recommends the award of the seals as follows:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
BA Soil Sciences	With requirements for one year	30.09.2027	–	-

Requirements

For all degree programme

A 1. (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

A 2. (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

A 3. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

A 4. (ASIIN 3) The number of exams needs to be reduced.

A 5. (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives, intended learning outcomes, the structure and the academic

level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Recommendations

For all degree programmes

E 1. (ASIIN 1.3) It is recommended to discuss options to extend the duration of the internships with industry and government representatives.
E 2. (ASIIN 2.1) It is recommended to discuss opportunities for graduate trainee programmes upon finalisation of the BA programme with the industry.
E 3. (ASIIN 2.1) It is recommended to enhance opportunities for international student mobility (internships, writing final thesis at collaborating partner organisations).
E 4. (ASIIN 2.1) It is recommended to integrate advanced subject-specific English courses into the curricula.
E 5. (ASIIN 2.2 and 3) It is recommended to find a solution in order to overcome existing problems related to the limited times students have for exam preparation.
E 6. (ASIIN 4.3) Laboratory places should be extended if the budget allows.

H Decision of the Accreditation Commission (17.09.2021)

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

The Accreditation Committee discusses the suggestion of the Technical Committee 06 to suspend the accreditation of the BA degree programme Natural Resource Economics. For equal treatment reasons in other comparable accreditation procedures – the Committee decides to accredit the degree programme under requirements.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
BA Water Technology	With requirements for one year	30.09.2027	-	-
BA Soil Sciences	With requirements for one year	30.09.2027	-	-
BA Natural Resource Economics	With requirements for one year	30.09.2027	-	-

Requirements

For all degree programme

A 1. (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

A 2. (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

A 3. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

A 4. (ASIIN 3) The number of exams needs to be reduced.

A 5. (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives, intended learning outcomes, the structure and the academic

level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Recommendations

For all degree programmes

E 1. (ASIIN 1.3) It is recommended to discuss options to extend the duration of the internships with industry and government representatives.
E 2. (ASIIN 2.1) It is recommended to discuss opportunities for graduate trainee programmes upon finalisation of the BA programme with the industry.
E 3. (ASIIN 2.1) It is recommended to enhance opportunities for international student mobility (internships, writing final thesis at collaborating partner organisations).
E 4. (ASIIN 2.1) It is recommended to integrate advanced subject-specific English courses into the curricula.
E 5. (ASIIN 2.2 and 3) It is recommended to find a solution in order to overcome existing problems related to the limited times students have for exam preparation.
E 6. (ASIIN 4.3) Laboratory places should be extended if the budget allows.

I Fulfilment of Requirements (23.09.2022)

Analysis of the peers and the Technical Committees 08 - Agriculture, Forestry, Food Sciences and Landscape Architecture, 03 – Civil Engineering, Geodesy and Architecture, 06 – Engineering and Management, Economics and 11 – Geosciences (14.09.2022)

Requirements

For all degree programmes

A 1. (ASIIN 2.2) A credit point system that is based on the amount of work the students spend on each module (workload) must be devised.

Initial Treatment	
Peers	not fulfilled Justification: SQU wants to continue to work with a credit system based on contact hours and does not agree with basing credits on actual workload. They continue to work with estimates.
TC 03	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 06	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 08	fulfilled Vote: unanimous Justification: The TC disagrees with the opinion of the peer panel. It views the estimates as a step in the right direction and considers the requirement to be fulfilled. However, the TC adds a recommendation: It is recommended to implement a process for determining whether the estimated workloads for self-study time are accurate.
TC 11	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.

A 2. (ASIIN 2.2) All mandatory parts of the curriculum must be credited.

Initial Treatment	
Peers	fulfilled Justification: SQU now awards credits for all mandatory parts of the curriculum. The course CAMS 2000 (Intro) will contribute to the GPA.
TC 03	fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 06	Fulfilled Vote: unanimous

	Justification: The TC agrees with the comments and opinion of the experts.
TC 08	fulfilled Vote: unanimous Justification: The TC agrees with the opinion of the peer panel.
TC 11	Fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.

A 3. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

Initial Treatment	
Peers	not fulfilled Justification: While the study programmes are designed to be more research oriented in future, no final thesis or final project has been introduced.
TC 03	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 06	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 08	Not fulfilled Vote: unanimous Justification: The TC agrees with the opinion of the peer panel.
TC 11	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.

A 4. (ASIIN 3) The number of exams needs to be reduced.

Initial Treatment	
Peers	not fulfilled Justification: The number of exams has not been reduced.
TC 03	Not fulfilled

	Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 06	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 08	fulfilled Vote: unanimous Justification: The TC disagrees with the opinion of the peer panel and considers this requirement to be fulfilled. It bases their assessment on the decision of the parallel cluster and is satisfied with the explanation of the university.
TC 11	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.

A 5. (ASIIN 5.2) A Diploma Supplement that contains detailed information about the educational objectives intended learning outcomes, the structure and the academic level of the degree programme as well as about the individual performance of the student must be issued to every graduate.

Initial Treatment	
Peers	fulfilled Justification: SQU issues a Diploma Supplement for the three programmes. It complies with the ASIIN guidelines.
TC 03	fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 06	fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 08	fulfilled Vote: unanimous Justification: The TC agrees with the opinion of the peer panel.
TC 11	fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.

Decision of the Accreditation Commission (23.09.2022)

The accreditation commission discusses the procedure and follows the assessment of the technical committee 08, as it was involved in the parallel cluster at SQU as well.
It therefore considers all requirements except for Requirement 3 to be fulfilled.

The Accreditation Commission decides to award the following seals:

Degree programme	ASIIN-label	Subject-specific label	Accreditation until max.
Ba Soil Science	Requirement 3 not fulfilled		6 months prolongation
Ba Water Technology	Requirement 3 not fulfilled		6 months prolongation
Ba Natural Resource Economics	Requirement 3 not fulfilled		6 months prolongation

A Fulfilment of Requirements (24.03.2023)

Analysis of the peers and the Technical Committees 08 - Agriculture, Forestry, Food Sciences and Landscape Architecture, 03 – Civil Engineering, Geodesy and Architecture, 06 – Engineering and Management, Economics and 11 – Geosciences (16.03.2023)

A 4. (ASIIN 3) A Bachelor thesis must be integrated as a compulsory element of the curriculum and must become a prerequisite for graduation.

Initial Treatment	
Peers	not fulfilled Justification: While the study programmes are designed to be more research oriented in future, no final thesis or final project has been introduced.
TC 03	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 06	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
TC 08	Not fulfilled Vote: unanimous Justification: The TC agrees with the opinion of the peer panel.
TC 11	Not fulfilled Vote: unanimous Justification: The TC agrees with the comments and opinion of the experts.
AC	Not fulfilled Vote: unanimous Justification: The AC follows the assessment of the peers and the TC.
Secondary Treatment	
Peers	fulfilled Vote: unanimous Justification: The research projects submitted meet the requirements of a bachelor's thesis because they reflect a sufficient level of independent research and are awarded a sufficient number of credits.
TC 03	fulfilled Vote: unanimous Justification: The TC 03 follows the assessment of the peers without any changes.
TC 06	fulfilled Vote: unanimous Justification: The TC discusses the procedure and agrees with the assessment of the expert group.

TC 08	fulfilled Vote: unanimous Justification: The TC discusses the procedure and agrees with the assessment of the expert group.
TC 11	fulfilled Vote: unanimous Justification: The TC discusses the procedure and agrees with the assessment of the expert group.

Decision of the Accreditation Commission (24.03.2023)

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

The Accreditation Commission decides to award the following seals:

Degree programme	ASIIN-label	Subject-specific label	Accreditation until max.
Ba Soil Science	All Requirements fulfilled		30.09.2027
Ba Water Technology	All Requirements fulfilled		30.09.2027
Ba Natural Resource Economics	All Requirements fulfilled		30.09.2027

Appendix: Programme Learning Outcomes and Curricula

According to [….] the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Water Technology:

To graduate students with skills and knowledge in the discipline of water technology enabling them to tackle emerging issues and crises related to sustainable management of water resources and to inculcate in them the ability to perform professional duties in government organizations, private companies and research-teaching units in the Sultanate of Oman.

The following **curriculum** is presented:

Study Plan: for Cohort 2019 &2020

Sem.	Course Code	Course Title	Cr.	Pre-req./Co-req.*	Cat.
ONE FALL		Foundation Program	0		UR
	TOTAL		0		
TWO SPRING	ARAB1001	Arabic	3		UR
	CAMS2000	Intro. CAMS	0		CR
	CAMS2003	Intro. to Food & Resource Economics	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	CHEM2101	General Chemistry I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	CR
	LANC2145	Communication in Agricultural Sciences	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
		University Elective	2		UE
	TOTAL		15		
THREE FALL	HIST1010	Oman & Islamic Civilization	2	=ISLM1010	UR
	LANC2146	Academic Writing in Science	3	LANC2145	CR
	PHYS2101	General Physics I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	CR
		University Elective	2		UE
		University Elective	2		UE
		College Elective	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CE
	TOTAL		16		
FOUR SPRING	SOCY1001	Contemporary Omani Society	1	= SOCI3320	UR
	BIOL2101	General Biology I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	CAMS3000	Seminar & Presentation Skills	2	CAMS2000, FPMT(0105 or 0109), LANC2146	CR
	CAMS3001	Biometry & Experimental Design in AMS	3	CAMS2000, FPMT(0105 or 0109), LANC2146	CR
		College Elective	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CE
		College Elective	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CE
	TOTAL		16		
FIVE FALL	MATH2107	Calculus I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	AR
	SWAE3303	Elements of Hydrology	3	PHYS2101, SWAE(2001 or 2201)	AR
	SWAE3308	Instrumentation & Control Systems	3	MATH2107, PHYS2101	AR
	SWAE3310	Fundamentals of Fluid Mechanics	3	MATH2107, PHYS(2101 or 2107)	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		16		

SIX SPRING	SWAE3001	GIS for Environmentalists	3	*LANC 2146 or 2052 or 2058*	AR
	SWAE3304	Soil & Water Conservation	3	PHYS2101 , SWAE(2001 or 2201)	AR
	SWAE3305	Agro-climatology	3	PHYS2101	AR
	SWAE3315	Water Quality	3	CHEM2101, SWAE2201	AR
	SWAE3311	Environmental Soil Physics	3	PHYS2101 , SWAE2201	AR
	TOTAL		**15**		

SEVEN FALL	SWAE3005	Land Surveying	3	MATH2107 and PHYS2101	AR
	SWAE3402	Irrigation Principles	3	SWAE2201	AR
	SWAE4325	Water Treatment	3	MATH2107, SWAE3315 + CR*	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**15**		

EIGHT SPRING	SWAE4217	Transport of Chemicals in Porous Media	3	SWAE(3303, 3311) + CR*	AR
	SWAE4305	Water Control & Supply	3	SWAE(2201, 3310) + CR*	AR
	SWAE4400	Ground Water Hydrology	3	SWAE3303 + CR*	AR
	SWAE4402	Design & Manage. Irrigation Systems	3	SWAE(3310, 3402) + CR*	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**15**		

SUMMER	SWAE4800	SWAE Internship	3	After 87 Credits, + CR*	AR
	TOTAL		**3**		

NINE FALL	CAMS4001	Management and Business Skills	3	CR*	CR
	SWAE4415	Water Res. Management & Legist.	3	MATH2107, SWAE3303 + CR*	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**15**		

* CR - CAMS college requirements which are BIOL2101, CAMS2000, CAMS2003, CAMS3000, CAMS3001, CHEM2101, PHYS2101 or PHYS2107.

LIST B: College Requirements (29 Credits)

Course Code	Course Title	Cr.	Pre-Requisite	Equivalents
BIOL2101	General Biology I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
CAMS2000	Introduction to Agricultural and Marine Sciences	0		
CAMS2003	Introduction to Food and Resource Economics	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
CAMS3000	Seminar and Presentation Skills	2	CAMS2000, (FPMT0105 or FPMT0109), LANC2146	
CAMS3001	Biometry and Experimental Design in AMS	3	CAMS2000, (FPMT0105 or FPMT0109), LANC2146	
CAMS4001	Management and Business Skills	3	CR*	
CHEM2101	General Chemistry I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	
LANC2145	Communication in Agricultural Sciences	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
LANC2146	Academic Writing in Science	3	LANC 2145	
PHYS2101	General Physics I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	

LIST C: College Electives (9 Credits)

Course Code	Course Title	Cr.	Pre-Requisite	Equivalents
ANVS2001	Principles of Animal Science	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
ANVS2002	Introduction to Veterinary Technology	3		
CROP2510	Introduction to Crop Production	3		
FSHN2071	Principles of Food Science	3		
FSHN2301	Introduction to Human Nutrition and Dietetics	3		
MASF2003	Introduction to Marine Science and Fisheries	3		
SWAE2001	Introduction to Agricultural Engineering	3		
SWAE2201	Introduction to Soils and Water	3		

* CR - CAMS college requirements which are BIOL2101, CAMS2000, CAMS2003, CAMS3000, CAMS3001, CHEM2101, PHYS2101 or PHYS2107.

According to [….] the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Soil Sciences:

The primary mission of the College of Agricultural & Marine Sciences through offering diverse programmes is to enrich graduates with basic and applied research skills that will lead to finding solutions and meeting the country needs and challenges in strategic issues relevant the agriculture, food, and fishery while conserving the natural environment and biodiversity. At SQU level, the mission is to excel in teaching and learning, research-innovations, and community service by developing metacognitive skills of the students in a collegial and stimulating environment and to participate in the production, development, dissemination, and advancing of knowledge and interact with national, regional, and international communities.

The following **curriculum** is presented:

Study Plan: for Cohort 2017

Sem.	Course	Course Title	Cr.	Pre-Requisite	Cat.
ONE FALL		Foundation Program	0		UR
	TOTAL		**0**		
TWO SPRING	ARAB1001	Arabic	3		UR
	CAMS2000	Intro. CAMS	0		CR
	CAMS2003	Intro. to Food & Resource Economics	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	CHEM2101	General Chemistry I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	CR
	LANC2145	Communication in Agricultural Sciences	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
		University Elective	2		UE
	TOTAL		**15**		
THREE FALL	HIST1010	Oman & Islamic Civilization	2	=ISLM1010	UR
	LANC2146	Academic Writing in Science	3	LANC(2145 or 2142)	CR
	PHYS2101	General Physics I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	CR
		University Elective	2		UE
		University Elective	2		UE
		College Elective	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CE
	TOTAL		**16**		
FOUR SPRING	SOCY1001	Contemporary Omani Society	1	= SOCI3320	UR
	BIOL2101	General Biology I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	CAMS3000	Seminar & Presentation Skills	2	CAMS2000, FPMT(0105 or 0109), LANC2146	CR
	CAMS3001	Biometry & Experimental Design in AMS	3	CAMS2000, FPMT(0105 or 0109), LANC2146	CR
		College Elective	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CE
		College Elective	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CE
	TOTAL		**16**		
FIVE FALL	MATH2107	Calculus I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	AR
	SWAE3302	Environmental Soil Chemistry	3	CHEM2101, SWAE2201	AR
	SWAE3303	Elements of Hydrology	3	PHYS2101, SWAE(2001 or 2201)	AR
	SWAE3308	Instrumentation & Control Systems	3	PHYS2101	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**16**		

SIX SPRING	SWAE3001	GIS for Environmentalists	3	*LANC 2146 or 2041 or 2052 or 2058*	AR
	SWAE3304	Soil & Water Conservation	3	PHYS2101, SWAE(2001 or 2201)	AR
	SWAE3315	Water Quality	3	CHEM2101, SWAE2201	AR
	SWAE3411	Environmental Soil Microbiology	3	BIOL2101	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**15**		

SEVEN FALL	ERSC2101	Introduction to Geology I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	AR
	SWAE3005	Land Surveying	3	MATH2107, PHYS2101	AR
	SWAE3311	Environmental Soil Physics	3	PHYS2101, SWAE(2001 or 2201)	AR
	SWAE3402	Irrigation Principles	3	PHYS2101, SWAE2201 + CR*	AR
	SWAE4404	Soil Genesis & Classification	3	ERSC2101 or SWAE2201 + CR*	AR
	TOTAL		**16**		

EIGHT SPRING	CAMS4001	Management and Business Skills	3	CR*	CR
	SWAE4110	Soil & Water Tour	2	SWAE4404 + CR*/=SWAE4410	AR
	SWAE4111	Hydropedology for Soil-Water Landscape Interactions	3	SWAE(2201, 3303, 3311) + CR*	AR
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**14**		

SUMMER	SWAE4800	Soil, Water & Ag. Eng. Internship	3	After 90 Credits + CR*	AR
	TOTAL		**3**		

NINE FALL	SWAE4401	Water & Nutrients in Soil-Plant	3	SWAE2201 + CR*	AR
	SWAE4412	Management of Salt-Affected Soils	3	SWAE2201 + CR*	AR
	SWAE4325	Water Treatment	3	CHEM2101, MATH2107, SWAE3315 + CR*	AE
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	SWAEXXXX	Major Elective	3	Check pre-requisites	AE
	TOTAL		**15**		

* CR - CAMS college requirements which are BIOL2101, CAMS2000, CAMS2003, CAMS3000, CAMS3001, CHEM2101, PHYS2101 or PHYS2107.

LIST B: College Requirements (29 Credits)

Course Code	Course Title	Cr.	Pre-Requisite	Equivalents
BIOL2101	General Biology I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
CAMS2000	Introduction to Agricultural and Marine Sciences	0		
CAMS2003	Introduction to Food and Resource Economics	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
CAMS3000	Seminar and Presentation Skills	2	CAMS2000, FPMT(0105 or 0109), LANC2146	
CAMS3001	Biometry and Experimental Design in AMS	3	CAMS2000, FPMT(0105 or 0109), LANC2146	
CAMS4001	Management and Business Skills	3	CR*	
CHEM2101	General Chemistry I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	
LANC2145	Communication in Agricultural Sciences	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
LANC2146	Academic Writing in Science	3	LANC(2145 or 2142)	
PHYS2101	General Physics I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	

LIST C: College Electives (9 Credits)

Course Code	Course Title	Cr.	Pre-Requisite	Equivalents
ANVS2001	Principles of Animal Science	3	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604)	
ANVS2002	Introduction to Veterinary Technology	3		
CROP2510	Introduction to Crop Production	3		
FSHN2071	Principles of Food Science	3		
FSHN2301	Introduction to Human Nutrition and Dietetics	3		
MASF2003	Introduction to Marine Science and Fisheries	3		
SWAE2001	Introduction to Agricultural Engineering	3		
SWAE2201	Introduction to Soils and Water	3		

* CR - CAMS college requirements which are BIOL2101, CAMS2000, CAMS2003, CAMS3000, CAMS3001, CHEM2101, PHYS2101 or PHYS2107.

LIST F: Major Requirements (55 Credits)

Course Code	Course Title	Cr.	Pre-Requisite	Equivalents
ERSC2101	Introduction to Geology I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or	
MATH2107	Calculus I	4	FPEL(0560 or 0600 or 0601 or 0602 or 0603 or 0604), FPMT(0105 or 0109)	
SWAE3001	GIS for Environmentalists	3	*LANC 2146 or 2041 or 2052 or*	
SWAE3005	Land Surveying	3	MATH2107, PHYS2101	
SWAE3302	Environmental Soil Chemistry	3	CHEM2101, SWAE2201	
SWAE3303	Elements of Hydrology	3	PHYS2101, SWAE(2001 or 2201)	
SWAE3304	Soil & Water Conservation	3	PHYS2101, SWAE(2001 or 2201)	
SWAE3308	Instrumentation & Control Systems	3	PHYS 2101	
SWAE3311	Environmental Soil Physics	3	PHYS2101, SWAE(2001 or 2201)	
SWAE3315	Water Quality	3	CHEM2101, SWAE2201	
SWAE3402	Irrigation Principles	3	PHYS2101, SWAE2201	
SWAE3411	Environmental Soil Microbiology	3	BIOL2101	
SWAE4110	Soil & Water Tour	2	SWAE4404 + CR*	SWAE4410
SWAE4111	Hydropedology for Soil-Water-Landscape Interactions	3	SWAE(2201, 3303, 3311) + CR*	
SWAE4401	Water & Nutrients in Soil-Plant Environments	3	SWAE2201 + CR*	
SWAE4404	Soil Genesis & Classification	3	ERSC2101 or SWAE2201 + CR*	
SWAE4412	Management of Salt-Affected Soils	3	SWAE2201 + CR*	
SWAE4800	SWAE Internship	3	After 90 Credits + CR*	

LIST G: Major Electives (21 Credits) **

Course Code	Course Title	Cr.	Pre-Requisite	Equivalents
NREC3300	Natural Resource Economics	3	CAMS2003	
NREC4500	Agricultural Extension Methods & Techniques	3	CAMS(2003, 3000, 3001)	
SWAE3002	Desertification & Land Restoration	3	SWAE2201	
SWAE3305	Agro-climatology	3	PHYS2101	
SWAE3306	Computer Programming	3	MATH2107, PHYS(2101 or 2107)	
SWAE3310	Fundamentals of Fluid Mechanics	3	MATH2107, PHYS2101	
SWAE4006	Arid-zone Hydrology	3	SWAE(2001 or 2201) + CR*	
SWAE4217	Transport of Chemicals in Porous Media	3	SWAE(3303, 3311) + CR*	
SWAE4304	Modeling & Analysis of Biophysical Systems	3	PHYS2101 + CR*	
SWAE4325	Water Treatment	3	CHEM2101, MATH2107, SWAE3315 + CR*	
SWAE4400	Ground Water Hydrology	3	SWAE3303 + CR*	
SWAE4402	Design & Management of Irrigation Systems	3	SWAE(3310, 3402) + CR*	
SWAE4902	Research Project in Soils, Water & Agricultural Engineering	3	Manual Registration, GPA≥2.3 + CR*	

* CR - CAMS college requirements which are BIOL2101, CAMS2000, CAMS2003, CAMS3000, CAMS3001, CHEM2101, PHYS2101 or PHYS2107.

** Courses from any Department (preferably related to a Minor) of the College of Agricultural and Marine Sciences or another College, may be selected with the approval of Academic Advisor, Head of Department and Assistant Dean of Undergraduate Studies. **No course will be approved without filling the substitution form and getting all necessary approvals prior registering any course not listed in the above degree plan.**

According to [….] the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Bachelor degree programme Natural Resource Economics:

The major goal of the department, through the degree program it offers, is to produce graduates with the economic knowledge and problem solving skills that will be required for productive public and private sector employment. The DNRE educates future Omani professionals in the areas of economics and business in the fields of agriculture, water, fisheries and food industry. The Department offers a Bachelor Degree in Natural Resource Economics as well as support courses on Natural Resource Economics for students in other Departments of the College of Agricultural and Marine Sciences (CAMS). DNRE offers also a Master of Science on Natural Resource Economics through course work and research and a PhD program through research only.

The following **curriculum** is presented:

B. Sc. in Natural Resource Economics, Degree Plan 2008				
UNIVERSITY REQUIREMENT				
Course Code	Title	Credits	Prerequisites	Equivalents and Comments
ARAB 1001	Arabic	3		
HIST 1010	Oman and Islamic Civilization	2		
LANC 2040	English for Agriculture I	3		
LANC 2041	English for Agriculture II	3		
SOCI 3320	Modern Omani Society	1		
XXXX 0000	University Elective	2		
XXXX 0000	University Elective	2		
XXXX 0000	University Elective	2		
Sub Total		18		
COLLEGE REQUIREMENTS (37 REQUIRED)				
Course Code	Title	Credits	Prerequisites	Equivalents and Comments
MATH 1106	Pre-calculus Math	4		
CAMS 2000	Introduction to Agricultural and Marine Sciences	1		
NREC 2003	Introduction to Natural Resource Economics	3		

BIOL 2101	General Biology	4		
CHEM 2101	General Chemistry	4		
PHYS 2101	General Physics	4		
CROP 3001	Statistical Methods in Agriculture	3		
CAMS 2001	Computer Applications	3		Register after completing 80 credits.
CAMS 4001	Management and Business Skills	3		Register after completing 80 credits.
CAMS 4002	Seminar and Presentation Skills	2		Register after completing 80 credits.
Sub Total		31		
INTRODUCTORY COURSES (6 CREDITS REQUIRED)				
Course Code	Title	Credits	Prerequisites	Equivalents and Comments
ANVS 2001	Principles of Animal Science	3		
MASF 2001	Introduction to Fisheries	3		
SWAE 2001	Introduction to Bioresource and Agricultural Engineering	3		
ANVS 2002	Introduction to Veterinary Technology	3		
SWAE 2002	Introduction to Agricultural Machinery	3		

MASF 2002	Introduction to Marine Science	3		
FSHN 2071	Principles of Food Science	3		
CROP 2201	Introduction to Agricultural Biotechnology	3		
SWAE 2201	Introduction to Soils and Water	3		
FSHN 2301	Introduction to Human Diet	3		
CROP 2510	Introduction to Crop Production	3		
Sub Total		6		
DEPARTMENTAL REQUIREMENTS (53 CREDITS REQUIRED)				
Course Code	Title	Credits	Prerequisites	Equivalents and Comments
NREC 2004	The World Food Problem	3		
NREC 3103	Macroeconomic Policy and Natural Resources	3		
NREC 3104	Intermediate Microeconomics for Natural Resource Management	3	NREC 2003	
NREC 3010	Production Economics	3	NREC 2003	
NREC 3011	Economics of Fisheries Management	3	NREC 2003	
NREC 3101	Marketing of Agricultural and Fisheries Products	3	NREC 2003	
NREC 3102	Agricultural and Food Policies	3	NREC 2003	

NREC 3220	Agribusiness Management	3	NREC 2003	
NREC 3300	Natural Resource and Environmental Economics	3		
NREC 4010	Applied Econometrics	4	CROP 3001, NREC 2003	
NREC 4230	Agricultural Finance	3		
NREC 4410	International Agricultural Trade	3	NREC 2003	
NREC 4420	Economic Development	3		
NREC 4430	Benefit Cost Analysis	3	NREC 2003	
NREC 4450	The Management of Natural Resource Projects	4		Register after completing 80 credits.
NREC 4500	Extension Methods and Techniques	3		
NREC 4800	Internship	3		Register after completing 80 credits.
Sub Total		53		

1 DEPARTMENTAL ELECTIVES (21 CREDITS REQUIRED)				
Course Code	Title	Credits	Prerequisites	Equivalents and Comments
ACCT 1111	Introductory Accounting	3	MNGT1510	ACCT1100

[1] The first seven courses listed in this table are components of the Minor in Business Administration. With the agreement of their Advisor students may select Minors from other CAMS Departments.

ACCT 2112	Introductory Accounting	3	ACCT1111	
MNGT 2511	Fundamentals of Management	3	MNGT1510	Corequisite LANC2070
POMG 2711	Introduction to Management Science	3	MATH1102 or MATH1063	Corequisite STAT2812
POMG 3712	Operations Management	3	POMG2711	
BCOM 2911	Business Communications	3	LANC2070	MRKT2681
MRKT 3611	Principles of Marketing	3	ECON1211,ECON2221	
FSHN 3075	Food Sanitation and Quality Control	3	FSHN2071 or FSHN3073 or FOOD2071 or MICB3073	FOOD3075
MASF 4040	Fisheries Management	3	FISH4080 or MASF4080	
NREC 4440	Mathematical Economics	3		
NREC 4900	Special Problems in Agricultural and Natural Resource Economics	3		
TOTAL		21		

List C: College Electives (9 Credits)

Course Code	Title	Credits	Pre-Requisites
BIOL2101	General Biology I	4	
CAMS2000	Introduction to Agricultural and Marine Sciences *	0	
CAMS2001	Computer Applications	3	
CAMS2003	Introduction to Food and Resource Economics	3	
CAMS3000	Seminar and Presentation Skills	2	CAMS2001
CAMS3001	Biometry and Experimental Design in AMS	3	
CAMS4001	Management and Business Skills	3	CAMS3001
CHEM2101	General Chemistry I	4	
LANC2040	English for Agriculture I	3	
LANC2041	English for Agriculture II	3	
PHYS2101	General Physics I	4	
Course Code	**Title**	**Credits**	**Pre-Requisites**
ANVS2001	Principles of Animal Science	3	
ANVS2002	Introduction to Veterinary Technology	3	
CROP2510	Introduction to Crop Production	3	
FSHN2071	Principles of Food Science	3	
FSHN2301	Introduction to Human Nutrition and Dietetics	3	
MASF2001	Introduction to Marine Science and Fisheries	3	
SWAE2001	Introduction to Agricultural Engineering	3	

SWAE2201	Introduction to Soils and Water	3	

List F: Major Requirements (50 Credits)

Course Code	Title	Credits	Pre-requisite	Equivalents & Comments
NREC2004	The World Food Problem	3		
NREC3010	Production Economics	3	CAMS2003	
NREC3011	Economics of Fisheries Management	3	CAMS2003	
NREC3101	Marketing of Agricultural and Fisheries Products	3	CAMS2003	
NREC3102	Agricultural and Food Policies	3	CAMS2003	
NREC3103	Macroeconomic Policy and Natural Resources	3		
NREC3104	Intermediate Microeconomics for Natural Resource Management	3	CAMS2003	
NREC3220	Agribusiness Management	3	CAMS2003	
NREC3300	Natural Resource and Environmental Economics	3		

NREC4010	Applied Econometrics	4	CAMS3001+CAMS2003	
NREC4230	Agricultural Finance	3		
NREC4410	International Agricultural Trade	3	CAMS2003	
NREC4420	Economic Development	3		
NREC4430	Benefit Cost Analysis	4	CAMS2003	
NREC4500	Extension Methods and Techniques	3		
NREC4800	Internship	3		

List G: Major Electives (21 Credits)

Course Code	Title	Credits	Pre-requisite	Equivalents & Comments
ACCT1111	Introductory Accounting I	3	MNGT1510	ACCT1100
ACCT2112	Introductory Accounting II	3	ACCT1111	
BCOM2911	Business Communications	3	LANC2070	MRKT2681
FSHN3075	Food Sanitation and Quality Control	3	FSHN2071 or FSHN3073 or FSHN2071 or MICB3073	FSHN3075
MNGT1510	Introduction to Business	3		
MNGT2511	Fundamentals of Management	3	MNGT1510	Corequisite LANC2070

NREC4440	Mathematical Economics	3		
NREC4450	The Management of Natural Resource Projects	3		
NREC4460 (proposed code)	Micro and Small Food Business Management	3		Proposed new course, currently in preparation
NREC4900	Special Problems in Agricultural and Natural Resource Economics	3		
POMG3712	Operations Management	3	POMG2711	

List H: Minor Requirements (3 Credits)

Course Code	Title	Credits	Pre-requisite	Equivalents & Comments
CAMS2003	Introduction to Food and Resource Economics	3		

List I: Minor Electives (15 Credits)

Course Code	Title	Credits	Pre-requisite	Equivalents & Comments
NREC2004	The World Food Problem	3		
NREC3010	Production Economics	3	CAMS2003	

NREC3011	Economics of Fisheries Management	3	CAMS2003	
NREC3101	Marketing of Agricultural and Fisheries Products	3	CAMS2003	
NREC3102	Agricultural and Food Policies	3	CAMS2003	
NREC3103	Macroeconomic Policy and Natural Resources	3		
NREC3104	Intermediate Microeconomics for Natural Resource Management	3	CAMS2003	
NREC3220	Agribusiness Management	3	CAMS2003	
NREC3300	Natural Resource and Environmental Economics	3		
NREC4010	Applied Econometrics	4	CAMS3001+CAMS2003	
NREC4230	Agricultural Finance	3		
NREC4410	International Agricultural Trade	3	CAMS2003	
NREC4420	Economic Development	3		
NREC4430	Benefit Cost Analysis	4	CAMS2003	

NREC4500	Extension Methods and Techniques	3		