



# **ASIIN Seal & Euromaster Label**

# **Accreditation Report**

**Master's Degree Programme**  
***Chemistry***

Provided by  
**Sultan Qaboos University, Muscat**

Version: 27 March 2026

---

## Table of Content

<b>A About the Accreditation Process.....</b>	<b>3</b>
<b>B Accreditation Status .....</b>	<b>5</b>
Result Overview .....	5
Fulfilment of the Accreditation Criteria .....	5
Requirements.....	6
Accreditation History .....	7
<b>C Characteristics of the Degree Programme.....</b>	<b>8</b>
<b>D Expert Report for the ASIIN Seal .....</b>	<b>10</b>
1. The Degree Programme: Concept, Content & Implementation .....	10
2. Exams: System, Concept and Organisation.....	23
3. Resources .....	26
4. Transparency and Documentation.....	32
5. Quality management: quality assessment and development .....	35
<b>E Additional Documents .....</b>	<b>37</b>
<b>F Comment of the Higher Education Institution (11.01.2026) .....</b>	<b>38</b>
<b>G Summary: Expert recommendations (02.02.2026) .....</b>	<b>42</b>
<b>H Comment of the Technical Committee 09 – Chemistry, Pharmacy     (16.03.2026) .....</b>	<b>44</b>
<b>I Decision of the Accreditation Commission (27.03.2026) .....</b>	<b>45</b>
<b>Appendix: Programme Learning Outcomes and Curricula .....</b>	<b>47</b>

## A About the Accreditation Process

Name of the degree programme (in original language)	(Official) English translation of the name	Labels applied for <sup>1</sup>	Previous accreditation (issuing agency, validity)	Involved Technical Committees (TC) <sup>2</sup>
Master's in Chemistry	-	ASIIN, Euromaster® Label	Royal Society of Chemistry, 2015 –2020	09
<b>Date of the contract:</b> 01.11.2023 <b>Submission of the final version of the Self-Assessment Report:</b> 14.08.2025 <b>Date of the onsite visit:</b> 29.-30.11.2025 <b>at: Campus SQU</b>				
<b>Expert panel:</b> Prof. Dr. Gernot Friedrichs, Christian-Albrechts-University Kiel (Germany) Prof. Dr. David-Samuel Di Fuccia, Kassel University (Germany) Dr. Zakiya Al-Azri, Petroleum Development Oman Maathir Al Jabri, student at German University of Technology in Oman				
<b>Representative of the ASIIN headquarter:</b> Johann Jakob Winter, M.Sc.				
<b>Responsible decision-making committee:</b> Accreditation Commission for Degree Programmes				
<b>Criteria used:</b> European Standards and Guidelines as of May 15, 2015 ASIIN General Criteria, as of December 28, 2023				

<sup>1</sup> ASIIN Seal for degree programmes; Eurobachelor®/Euromaster® Label: European Chemistry Label

<sup>2</sup> TC: TC 09 – Chemistry, Pharmacy

**A About the Accreditation Process**

---

Subject-Specific Criteria of Technical Committee 09 – Chemistry, Pharmacy as of March 29, 2019	
--	--

---

## B Accreditation Status

### Result Overview

The most recent decision for the ASIIN Seal was made by the ASIIN Accreditation Commission on 27.03.2026.

Degree Programmes	ASIIN Seal	Validity	Euromaster®	Validity
Ma Chemistry	Accredited with requirements	27.03.2026 – 22.04.2027	Accredited with requirements	27.03.2026 – 22.04.2027

### Fulfilment of the Accreditation Criteria

ASIIN General Criteria / Subject-Specific Criteria	Ma Chemistry
<b>1 Degree programme: Concept, Content &amp; Implementation</b>	
<i>1.1 Objectives and learning outcomes (intended qualification profile)</i>	Fulfilled
<i>1.2 Title of the degree programme</i>	Fulfilled
<i>1.3 Curriculum</i>	Fulfilled
<i>1.4 Admission requirements</i>	Fulfilled
<i>1.5 Workload and credits</i>	<b>Not fulfilled</b> Requirement A 1
<i>1.6 Didactics and teaching methodology</i>	Fulfilled
<b>2 Exams: System, Concept and Organisation</b>	
<i>2 Exams: System, Concept and Organisation</i>	Fulfilled
<b>3 Resources</b>	
<i>3.1 Staff and staff development</i>	Fulfilled

<b>ASIIN General Criteria / Subject-Specific Criteria</b>	<b>Ma Chemistry</b>
<i>3.2 Student support and student services</i>	Fulfilled
<i>3.3 Funds and equipment</i>	<b>Not fulfilled</b> Requirement A 2
<b>4 Transparency and Documentation</b>	
<i>4.1 Module descriptions</i>	<b>Not fulfilled</b> Requirement A 3
<i>4.2 Diploma and Diploma Supplement</i>	<b>Not fulfilled</b> Requirements A 4, A 5, A 6
<i>4.3 Relevant rules</i>	<b>Not fulfilled</b> Requirement A 3
<b>5 Quality Management: Quality Assessment and Development</b>	
<i>5 Quality Management: Quality Assessment and Development</i>	Fulfilled

## Requirements

- A 1. (ASIIN 1.5) Transparently evaluate the student workload and allocate credits accordingly.
- A 2. (ASIIN 3.3) Implement new or evaluate existing measures to ensure compliance with applicable laboratory safety and personal protective requirements.
- A 3. (ASIIN 4.1/4.3) Update and harmonise the module descriptions of all modules and make them accessible to all stakeholders.
- A 4. (ASIIN 4.2) The thesis title needs to be outlined on the Transcript of Records.
- A 5. (ASIIN 4.2) Issue a comprehensive Diploma Supplement that provides information on the student's qualifications profile and individual performance compared to a group, as well as the classification of the degree programme with regard to the respective education system. The Diploma Supplement must also contain information about the

## **B Accreditation Status**

---

applied credit system, and the conversion rules respectively transfer mechanisms to ECTS.

A 6. (ASIIN 4.2) Show the whole ECTS points equivalence for the programme in the final documents.

## **Accreditation History**

The programme has not been previously accredited by ASIIN.

## C Characteristics of the Degree Programme

a) Name	Final degree (original/English translation)	b) Areas of Specialization	c) Corresponding level of the EQF <sup>3</sup>	d) Mode of Study	e) Double/Joint Degree	f) Duration	g) Credit points/unit	h) Intake rhythm & First time of offer
Master's in Chemistry	M.Sc.	-	7	Full time	no	4 semesters	30 Credit units	1998

### Contextualisation

Sultan Qaboos University (SQU) is a public university in the Omani province of A'Seeb, in the country's capital Muscat. Established in 1986, it is one of the two public universities in the country and is named after Qaboos bin Said al-Said, the Sultan of Oman from 1970 until 2020. It is ranked as the top university of Oman and currently hosts about 7,500 students. The University has nine colleges, each managed by a dean. The programme under review is offered by the College of Science that, besides the Department of Chemistry, consists also of six other departments. To underline and further develop its outstanding position in the country, many study programmes at the College of Science were or are currently subject to ASIIN accreditation. The Master's in Chemistry programme is subject to accreditation by ASIIN for the first time but had been internationally accredited before by the UK-based Royal Society of Chemistry.

### General assessment

Overall, the experts positively emphasise the quality and standards of the Master's programme at hand which is foremostly characterised by an almost exclusively theoretical coursework part followed by a comprehensive and highly demanding final research project. The programme is implemented by a highly qualified, continuously developing, and highly committed staff body with a high share of international lecturers who bring diverse perspectives to the Chemistry department. The experts also highlight that the university's both general and subject-specific facilities, especially the analytical equipment, as an asset of the programme, and appreciate the extensive student support system. In that regard, further efforts of the university should be devoted to expand and strengthen support for this research-oriented Master's programme in promoting international student mobility.

<sup>3</sup> EQF = The European Qualifications Framework for lifelong learning

However, the essential basis to enable and encourage mobility is a solid and transparent documentation of the programme and the students' achievements, which is the area in which the experts identify strong need for improvement. This includes, among other aspects, updating, harmonising, and publishing module descriptions, the adherence to international standards regarding the graduate documentation, and the correct use and documentation of a workload-based credit system. Additional recommendations include (i) establishing and enhancing funding schemes for Master's research projects to give students the opportunity to independently select their research topics, (ii) the inclusion of more laboratory components in the structured coursework, and (iii) a better involvement of local industrial stakeholders in the programme development.

### **Programme profile**

In the Self-Assessment Report, SQU presents the following profile of the Master's in Chemistry programme:

"The M.Sc. program in Chemistry at Sultan Qaboos University provides an opportunity for students to specialize in Analytical, Inorganic, Organic and Physical Chemistry as well as interdisciplinary research comprising more than one discipline.

The program provides opportunities to join multi-disciplinary teams in research and training in a large suite of synthetic, molecular, analytical and nano techniques. The M.Sc. program at SQU prepares students for careers in Chemistry and to further continue their education in advanced post-graduate studies and/or professional institutions. Completion of the M.Sc. courses and the one-year research project provide students with fundamental science skills and a deep understanding of the chemical principles, scientific thinking, research methodologies, safety, ethic and technical experience required to pursue their career in research and industry."

---

## D Expert Report for the ASIIN Seal<sup>4</sup>

### 1. The Degree Programme: Concept, Content & Implementation

<b>Criterion 1.1 Objectives and Learning Outcomes of a Degree Programme (Intended Qualifications Profile)</b>
---

**Evidence:**

- Self-Assessment Report
- Module descriptions
- Program Quality Assurance Process Information Sheet
- Chemistry Department programme website: <https://www.squ.edu.om/science/Departments/Chemistry/Postgraduate>
- SQU postgraduate studies information website: <https://www.squ.edu.om/ps/en-us/programs/articleid/785/msc-in-chemistry>
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

The experts base their assessment of the learning outcomes on the information provided on the websites and in the Self-Assessment Report. The experts refer to the Subject-Specific Criteria (SSC) of the Technical Committee 09 – Chemistry, Pharmacy as a basis for judging whether the intended competence profile of the programme corresponds with the competences as outlined by the SSC.

At SQU, study programmes are characterised by general Programme Educational Objectives (PEOs) and Programme Learning Outcomes (PLOs). While PEOs are formulated at a more comprehensive level, the PLOs specify the set of competences graduates shall acquire during the studies.

According to the Programme Quality Assurance Information Sheet, the objective of the programme is to produce postgraduates who will be capable of:

---

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

- “understanding the context of scientific publications using their chemical knowledge and analytical skills.
- keeping their scientific knowledge up-to-date by following new findings and advancements.
- tackling tasks using research skills gained in the MSc program and planning logical approaches to solving them.
- presenting and discussing scientific themes in a professional manner.”

The respectively derived PLOs are anchored in the same document and are transparently published on the programme’s website. They cover the areas of “in-depth and detailed functional knowledge” of core Chemistry concepts, independent research competence at an advanced level, as well as personal and social skills. Thus, the experts confirm that the PLOs correspond to the provisions of the applicable SSC. The PLOs are displayed in the appendix. At the level of the individual modules, the PLOs are distinguished into specific Course Learning Outcomes. Overall, the experts are satisfied with the defined learning outcomes and, during the on-site interview sessions, gained the impression that the graduates are highly qualified and well suited to their intended roles. Given that the programme is fully taught in English and involves a high number of international teaching staff, the students have a high level of English proficiency, which also qualifies them for work in international contexts and the international labour market.

Although there is no formal tracer study, the Department of Chemistry loosely tracks the employment of their Master’s graduates. As the programme coordinators explain, the department currently considers implementing a tracer study for the Master’s programme similar to the one that already exists for the Bachelor’s programme, which the experts deem to be of significant value for the programme development. According to the Self-Assessment Report, as Bachelor’s graduates are in high demand in the industry, many of the students are already employed by both private companies and public institutions in Oman and take leave to complete the Master’s degree (see also chapter 1.4). After graduation, they return to their companies to take over higher-level positions, e.g. middle-management and supervisory positions. Fields of employment are forensic labs, pyrotechnical units, and municipality food inspection labs, as well as refining, recycling, and polymer industries, and institutions in the environmental remediation field. Some graduates also continue academic careers, mostly by starting doctoral careers abroad, which the experts deem perfectly reasonable given the sound and extensive research exposure of the Master’s students (see chapter 1.3). However, during the on-site interviews, the experts receive the impression that there is no clearly defined graduate profile for Master’s graduates, which could be addressed by a better structured involvement of industrial stakeholders. Although, on paper, there is a board of industrial stakeholders that is supposed to meet at

least once a year and to advise on the development of the programme to ensure the topicality of the programme focus and PLOs, this board is no longer active. As explained by the programme coordinators, the industrial stakeholders started to request compensation for their participation in the meetings which was declined by the university. As the industry mainly recruits Bachelor graduates, the interest in this more theoretical, research-oriented Master's programme appears to be generally low. In that regard, the experts strongly recommend SQU to better strengthen and foster the integration of industrial stakeholders in the programme development and implementation. Regular engagement with industry stakeholder will help to: 1) sharpen the programme's external profile and recognition; 2) strengthen the curriculum content; 3) enhance relevance to the local market; 4) improve curriculum relevance and adaptability; 5) foster practical and applied learning; and 6) expand employment opportunities for graduates (see chapter 1.4).

Every five years, the university organises an alumni gathering which serves the purpose of both networking as well as programme development. All programme review and development processes are administered at the department level by the Departmental Board, which has installed different committees. As outlined in the Program Quality Assurance Process Information Sheet, different surveys among active students, graduates, and employers are also considered for the evaluation and revision of the PLOs, which is confirmed by the students during the audit. Likewise, the input of international academic experts in the form of accreditation audits is used to further develop the programme.

In summary, the experts confirm that the objectives and learning outcomes of the degree programme are described briefly and concisely. They are transparently published online and thus are available to students, lecturers, and interested third parties. The objectives and learning outcomes adequately reflect the targeted academic qualification level of EQF 7 for Master's programmes, enable graduates to take up suitable professions, and correspond to the provisions of the SSC of Technical Committee 09 – Chemistry, Pharmacy. Furthermore, the competence profile of graduates is feasible and equivalent to the criteria specified in the Guidelines for Applications for the Chemistry Euromaster® Label. The experts further confirm that adequate review and development mechanisms are in place. However, the involvement of industrial stakeholders and other external potential employers should be strengthened to better link the programme with relevant employers and industries.

<b>Criterion 1.2 Name of the Degree Programme</b>
---

**Evidence:**

- Self-Assessment Report

- Program Quality Assurance Process Information Sheet
- Chemistry Department programme website: <https://www.squ.edu.om/science/Departments/Chemistry/Postgraduate>
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

As English is the official language of the programme, the original name is Master's in Chemistry which, as the experts confirm, is in line with international denomination standards and adequately reflects the PEOs and PLOs, as well as the curriculum of the programme. Graduates are awarded a Master of Science degree. The experts further confirm that the programme name is used consistently in all relevant documents and on all relevant websites.

<b>Criterion 1.3 Curriculum</b>
---------------------------------

**Evidence:**

- Self-Assessment Report
- Study plan
- Module descriptions
- Academic regulations for postgraduate studies
- International student guidebook
- SQU visiting students criteria
- Student exchange statistics
- Annual report of the Assistant Dean for Postgraduate Studies
- Examples of QA meeting minutes
- Discussions during the audit

**Preliminary assessment and analysis of the experts:**

The experts base their assessment of the curriculum on the programme's study plan, as displayed in the appendix, the module handbooks, as well as further supporting documentation as given in the Self-Assessment Report.

*Structure and content*

The programme encompasses a total of 30 credit hours to be completed over a regular study duration of two years/ four semesters. The curriculum contains four compulsory modules (12 credit hours in total), four elective module slots (12 credit hours in total), and

the Master's thesis (6 credit units). The compulsory modules are "Advanced Inorganic Chemistry", "Advanced Organic Chemistry", "Advanced Physical Chemistry", and "Advanced Methods in Analytical Chemistry", equally worth 3 credit units each, which are comprehensive advanced, predominantly theoretical modules in the fields that cover a wide range of topics. For individual specialisation, students must select three out of ten elective modules that deepen the chemistry fields covered in the core curriculum within their chosen area. In addition, one elective module may be selected from a catalogue of modules open to both Bachelor's and Master's students, allowing students to concentrate all elective choices within a single specialisation domain. As confirmed by the students to the experts' satisfaction, all selected elective modules are offered on demand, even when class sizes are small. With regards to students' mandate, students are supposed to complete the structured coursework within the first year of the programme. The second year is reserved for the students' research work and the Master's thesis. However, as the programme coordinators explain, this is not a fixed structure and students can flexibly decide when to take which elective modules.

Overall, the experts recognise that the curriculum is mainly research-oriented which multiple students affirm and highlight as the main reason to take the programme. After discussing the module contents with the programme coordinators and teaching staff, the experts also express the satisfaction with the curricular contents. However, in that regard, they point out that the module descriptions do not adequately reflect this content and therefore need to be revised and updated (see chapter 4.1).

In summary, the experts confirm that curriculum consists of well-defined modules and enables students to achieve the intended learning outcomes. The catalogue of elective modules, as well as the choice of their research project, gives the students large autonomy to set individual focus points and specialise in their fields of interest.

#### *Internationalisation and student mobility*

As the representatives of the university explain, the university actively pursues the goal of increasing the share of international students and staff and has established the International Office to develop and implement strategies to reach this goal. According to the statistics on student mobility, the Faculty of Science has hosted multiple international students from countries worldwide over the past five years. The international student guide describes SQU's services for international students and shows how incoming mobility is supported. The requirements for international students are anchored in the visiting student criteria and include, e.g., minimum GPA requirements. Among others, there are scholarship options to encourage international students to study at SQU. In terms of outgoing mobility, the experts are of the opinion, that the structure of the programme does not generally

impede student mobility, as the modules could also be taken abroad. The academic regulations transparently outline the conditions for transfer and recognition of credits obtained at different institutions, which generally enables student mobility without the prolongation of study times.

However, in the Master's in Chemistry programme, there has not been student exchange so far. During the audit, it becomes apparent that one major reason for that, besides the short programme duration which makes it challenging to organise student mobility, is the financial aspect. Most of the students already must pay the tuition fees for SQU and do not have the means to finance costly semesters abroad. Nevertheless, as the experts positively note, the students are supported in getting international experience by participating in scientific conferences and presenting their research projects, e.g., in Qatar and the UAE.

In summary, the experts regret the lack of student exchanges in the Master's in Chemistry programme but confirm that the structural design of the degree programme, recognition of qualifications, and support services of the university generally provide an appropriate framework for mobility activities. This should be more used.

#### *Periodic Review*

According to the Self-Assessment Report, the current curriculum was implemented in 2021 and will be valid for entering cohorts up to 2029. The curriculum is revised every five years by a Curriculum Committee which is installed by the Department Board, and the expertise of international scholars as well as the students is considered for these reviews (see also chapter 1.1). Part of recent ideas for adapting the programme was the reduction of the number of mandatory elective modules which need to be taken from four to two, as students complained about the high workload (see chapter 1.5). However, as the programme coordinators explain, this was forbidden by the university with reference to the accreditation by the Royal Academy of Chemistry, which had accredited the programme with four elective slots in 2015. The experts also oppose the idea of reducing the structured course workload of the programme as they deem the specialised input highly important for the qualification of the students in their path towards the final thesis. Instead, a reduction of the overall student workload can be achieved otherwise, as addressed in the following sections of this report.

In summary, the experts confirm that the curriculum is regularly revised regarding the implementation of the programme objectives. In general, the students are also able to obtain the degree within the standard period of study.

<b>Criterion 1.4 Admission Requirements</b>
---

**Evidence:**

- Self-Assessment Report
- Academic regulations for postgraduate studies
- Admission rate statistics
- Study plan
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

The admission requirements and procedures are regulated and described in the academic regulations. There are three different general entry conditions, which are defined as follows:

- “Applicants should have a Bachelor's degree in Chemistry or in a related subject from Sultan Qaboos University or from any other recognized university, with a cumulative Grade Point Average (GPA) of not less than 2.75 on a 4-point scale, or
- Two years’ work experience is a must for candidates with Cumulative Grade Point Average between 2.5 and 2.74 in the Bachelor degree, or
- Applicants who have Bachelor degree from a recognized institution and a postgraduate diploma in a related specialization from a recognized institution of higher education with a minimum cumulative GPA of 3.00 on a 4-point scale or its equivalent.”

Besides these university-regulated conditions, the Department of Chemistry has established a minimum GPA requirement over all Chemistry modules of a Bachelor’s programme (not only the overall GPA) as an additional admission criterion to better filter for the subject-specific competence of the graduates. Also, a mandatory interview was set up as part of the admission process to ensure that the applicants really have the competencies, including a sound training in laboratory work, that are outlined on paper. The programme coordinators explain that the interview is the stage of the admission process in which about 50% of the applicants are ruled out, as especially foreign applicants from some areas do not meet the required standard. The cohort statistics show that, since the introduction of this interview stage, the dropout rate of the programme has significantly decreased, which is positively acknowledged by the experts.

For applicants who have graduated from Bachelor’s programmes other than Chemistry, it is up to the Admission Committee to determine the applicants’ qualification for the programme. It may pose certain conditions for the admission and oblige students to take

suitable bridging courses of no more than 18 credit units to ensure that the necessary entry-level knowledge and skills are given to start the programme. These courses, usually Bachelor-level Chemistry courses at SQU, must be completed with a minimum cumulative GPA of 2.75 within a maximum of one academic year. As the programme coordinators explain, bridging courses are required in many cases in which the applicants' Bachelor's programmes do not contain sufficient laboratory practice hours. As elaborated on section 1.6, the Master's in Chemistry programme, except some hand-on exercises integrated in the course work, does not contain any structured laboratory work component. This is in contrast to the need that students must be able to independently conduct practical experiments as part of the self-study time for the modules, as well as the practical research for the final theses. Therefore, solid laboratory practice foundations, comparable to the lab work intensive Bachelor in Chemistry programme at SQU, are required for admission, which the experts deem reasonable.

Moreover, as the programme is taught fully in English, English language competency is defined as an admission criterion. Students have to demonstrate their language competence at level 6 IELTS or a score of 550 in a paper-based TOEFL test or a score of 79 in an online TOEFL test.

The academic regulations also specify conditions and procedures for the recognition and transfer of credits obtained at different higher education institutions if equivalence of the module contents is granted. Transferred credits should not have been obtained more than two years prior to admission to SQU and need to be listed in an official Transcript of Records. The share of credits that can be recognised is limited to 50% of the programme's total credit units.

Furthermore, there are university policies and guidelines to address inclusivity. Based on individual needs, special assistance is provided as the programme coordinators explain. However, there have not been any students with special needs in the Master's in Chemistry programme so far.

While the experts confirm that the admission requirements and processes are transparently defined and enable a targeted subject-specific selection of students, they are concerned about the low student numbers in the programme. According to the Self-Assessment Report, the programme has a maximum intake capacity of 15 students per cohort. While the number of admitted students has been ranging close to this number over the past years, the number of enrolled students per batch averages at only half of the capacity. According to the programme coordinators, the low numbers of postgraduate students are a problem in all Master's programmes at SQU. In comparison to other programmes, the student number in the Master's in Chemistry programme is said to be favourable. A reason for that is the low interest in Master's programmes due to the good job prospects of

Bachelor's graduates (see also chapter 1.1) and the fact that, for Omani students, the Master's degree requires tuition fees while the Bachelors' education is free. Related to these framework conditions, only about half of the admitted students start the programme. While the experts are satisfied that the programme is sustained despite the low number of students, they urge SQU to implement measures to raise the number of students and see great potential in the internationalisation of the student body. The programme offers very good conditions to host international students, and the experts recommend using this potential by actively seeking to attract foreign applicants.

In summary, the experts confirm that there are transparent and binding admission regulations that ensure sufficient prior qualification of the students. These also include provisions for the recognition of externally achieved credits, as well as pathways to compensate for potentially missing entry qualifications. While the admission procedure is managed well and adapted regularly to current needs, the experts are concerned about the overall low number of students. As Master's programmes appear comparatively unattractive to Omani students due to institutional arrangements of the education system and the local labour market, the expert see huge and realistic potential in attracting international students.

#### **Criterion 1.5 Workload and Credits**

##### **Evidence:**

- Self-Assessment Report
- Study plan
- Academic regulations for postgraduate programmes
- Oman qualifications framework manual
- Discussions during the on-site visit

##### **Preliminary assessment and analysis of the experts:**

According to the Self-Assessment Report, SQU employs the Oman credit system which, as outlined in the Oman qualifications framework manual, is based on the number of "notional learning hours needed by a `typical learner` to achieve the PLOs" of a module. The number of notional learning hours includes all the activities that students are expected to engage in, including also self-study time. The Oman credit system defines two different credit units: credit points, which are equivalent to 10 notional learning hours, and credit hours, equivalent to 42 hours of workload. This count is based on 14 semester weeks with 3 hours of workload each that are allocated to the different types of both structured and individual learning activities. According to the workload of regular modules in the

programme is 3 credit hours, while the Master's thesis counts 6 credit hours. The total workload of the programme is 30 Oman credits hours distributed over four semesters.

During the audit, the programme coordinators explain that the Master's in Chemistry programme does not adhere to the Oman credit system but still applies an older SQU credit framework which employs the number of attendance hours to calculate the credit hours, similar to the American system. Therefore, the number of SQU credits hours is very low and imbalanced across the two years, as the designated study plan foresees 24 credits of structured modules in the first year of studies (8 modules á 3 credit hours each) and the Master's thesis for the entire second year of studies, which however, comprises only 6 credits. The experts wonder why the programme does not use the national credit framework but consider this a matter of national accreditation. However, the provisions of the ASIIN criteria need to be followed. During the audit, it becomes clear that students indeed work a lot and very hard to complete the programme and the experts point out that this is not adequately reflected in the credit system.

While the experts deem this national credit system to be well-defined, they wonder why it is not used in this study programme leading to an overall low workload of the programme on paper. Distributed over four semesters of regular study duration, the programme officially encompasses a total of 30 SQU credit hours. Converted into ECTS, based on the assumption of the minimum of 25 hours of workload per ECTS credit, these credit units amount only to 50 ECTS credits in total which is too little for a Master's degree and also does not correspond to the student workload. The ECTS User's Guide requires at least 60 ECTS for a Master's programme and 300 ECTS of a student's total credit achievement in Bachelor's and Master's programmes combined. Based on full-time work equivalent hours, the workload per semester should be equivalent to around 30 ECTS credits.

Understandable and well-defined credit point systems are a crucial instrument for the recognition of degrees and achievements internationally, a too low number of credit points shown in the Transcript of Records can be a major problem for students and graduates when applying for jobs or PhD positions outside Oman.

To address this shortcoming, a transparent evaluation of the total student workload per module, including all structured and individual learning activities as well as examinations and module-related administrative processes must be the first step. Only based on this data, the actual workload can be monitored and the adequate number of credits verified, respectively determined. The experts stress that the independent workload per module may vary and that, therefore, the workload-based credits do not necessarily have a fixed relation to the attendance-based credits. Thus, the basis for the credit allocation must be

a workload evaluation instead of a theoretical conversion of the existing numbers. In particular, this holds true for the workload assessment for the Master's thesis.

As the students explain, there are annual course surveys to evaluate the contents and teacher performance; however, there is no structured evaluation of the student workload. Nevertheless, as all participants of the interview sessions explain, students regularly point out an overly high workload in the open questions. The students explain that, because of this high workload, many students take only three instead of four modules per semester in the first year and complete the remaining modules while already engaging in the thesis work. The structured workload evaluation at the module level would be a crucial tool to identify the workload-critical points of the curriculum, based on which respective measures to address this problem of seemingly too high workload in the first two semesters can be derived. Despite this high workload, the experts note that, among those who finish, many of the students can graduate from the programme within the designated study period of two years. Extensions of one semester are not uncommon, however, which is in most of cases explained by problems and delays occurring during the experimental part of the thesis, e.g., due to the unavailability of certain chemicals (see also chapter 2).

In summary, the experts raise concerns about the credit system in use, which appears to align with neither the Omani national framework nor any other workload-based credit model. This leads to several issues related to the distribution and assessment of workload, as well as the transparent recording of students' academic achievements. To remedy this, the experts require SQU to transparently define the credit system, conduct a transparent evaluation of student workload, and allocate the credits accordingly.

#### **Criterion 1.6 Didactic and Teaching Methodology**

##### **Evidence:**

- Self-Assessment Report
- Exemplary module survey results
- Discussions during the on-site visit

##### **Preliminary assessment and analysis of the experts:**

According to the Self-Assessment Report, the most used teaching formats are lectures and guided reading of published articles. The structured modules are theoretical with no associated structured practical/lab component. However, as the teaching staff explains during the on-site interview, the teaching and learning methodology focuses on student engagement by employing mixed and interactive methods such as problem-based learning, project

work, individual and group assignments, as well as occasional practical laboratory work in a few modules. The structured teaching is organised face-to-face, and only the independent study part is supported by digital learning elements, which the experts deem reasonable. The students are generally satisfied with the teaching activities and the distribution of structured and individual learning times in the programme, which is also regularly evaluated by means of the annual course surveys. During the audit, the experts also get a positive impression of the lecturer engagement and contact with the students which enriches their learning experience.

Nevertheless, the experts note the limited practical laboratory work elements in teaching. While they consider this structurally generally suitable for theoretical Master's programmes, they would still expect some practical elements to better prepare students for the extensive independent experimental work they have to conduct during their thesis projects. The programme coordinators explain that all students need to already have solid foundations of laboratory work as this is a prerequisite for entering the programme (see chapter 1.4). The experts acknowledge this explanation and recognise that the SQU's Bachelor's programme in Chemistry contains a large share of laboratory practice and that other applicants also need to demonstrate the completion of a comparable number of lab hours. Still, some of the students explain that laboratory work can be a challenge, as most of them do not enter the programme directly after the Bachelor's programme but have already completed several years of work in between. Therefore, the notion is confirmed that a (re-)introduction to independent laboratory work as part of the curriculum would be beneficial. Similarly, the teaching methods regarding scientific work in preparation of the thesis are mentioned as room for improvement by the students. Given these comments, the experts recommend including elements of laboratory work and research methodology, either as part of the compulsory courses or at least in several elective modules. In the latter way, the theoretical foundations of the four core modules could be complemented by more specialised elective modules which constitute the students' individual specialisations and, topic-wise, usually lead to the theses.

In summary, the experts confirm that the employed teaching and learning methods are student-centred and well-suited to promote the achievement of the PLOs. The methodology is regularly reviewed. The Master's thesis project constitutes an extensive research component of the curriculum. To better prepare students for the independent work of this project, it is recommended to include elements of practical laboratory work and research methodology in the structured learning activities of the compulsory or elective modules.

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

Criterion 1.1:

In its statement, SQU affirms its willingness to reconstitute the “Industrial Advisory Board” and implement a tracer study. The experts appreciate the response but sustain their recommendation to underline the importance of these measures.

Criterion 1.3/ 1.4:

The experts acknowledge SQU’s commitment towards internationalisation of the programme. However, as no concrete measures have been planned or implemented, the experts sustain the initial recommendation.

Criterion 1.5:

In its statement, SQU provides further explanation regarding the designated workload of in each semester and the respective credit assignments, and the experts appreciate the effort to provide a quick estimate. Based on this explanation, the total number of work hours for the whole programme is 2,736 hours which, taking the minimum measure of 25 working hours per ECTS credit, is still a comparably low number for a 2-year full-time Master’s programme. Also, the experts point out that the number of designated working hours per semester appears not to coincide with the actual high student workload described during the on-site visit, and no evidence of verification of the allocated hours (e.g. in terms of a structured module-level workload evaluation) is presented. Finally, the relation of workload and credits still does not become clear respectively do not match the Omani credit framework. In that regard, SQU explains that the existing credit hour definition and allocation is currently being reworked. The experts appreciate that a process of reworking this framework has been initiated, which is essential. Crucially important for successfully implementing a structured framework is a transparent evaluation of the student workload as the starting point for all calculations. The experts sustain the requirement to address this problem.

Criterion 1.6:

The university states that possibilities to include practical lab work in the structured courses will be explored. The experts support this and keep up the recommendation.

Final assessment:

Overall, the experts confirm the quality of the content and structural design of the programme. They appreciate that the university wants to address the initial recommendations regarding student mobility, practical lab work, and stakeholder involvement, but decide to formalise these points to follow them up. The credit system respectively the foundation of

a workload evaluation remains the most critical problem which needs to be thoroughly revised and adapted to comply with the accreditation criteria.

In summary, the experts consider this criterion to be **partially fulfilled**.

## 2. Exams: System, Concept and Organisation

### Criterion 2 Exams: System, Concept and Organisation

#### Evidence:

- Self-Assessment Report
- Examination regulations
- Module descriptions
- College decree on the implementation of a fixed grading scale
- Student academic misconduct policy
- Staff instructions for invigilating examinations
- Exam moderation form
- Discussions during the on-site visit

#### Preliminary assessment and analysis of the experts:

As outlined in the examination regulations, each structured module is assessed by at least three examination components to cover all aspects of the PLOs. Usually, there are a mid-term and a final exam, for which the dates are set by the Deanship of Admission and Registration. Besides these, every lecturer is responsible for the selection of complementary examination forms such as quizzes, projects, presentations, and homework assignments. The examination forms and their weight for the final overall grade are specified and transparently outlined in the module descriptions. During the on-site visit, the experts examine samples of different examinations and confirm that they adequately cover content at the Master's level of EQF 7 and that the exam tasks are suitable for assessing the achievement of the PLOs. However, they are wondering about the necessity of the manifold exams in every module which keeps the exam pressure high and contributes to the seemingly high workload of the students. Although students are apparently able to cope with the exam load, the experts would see potential for reducing the student workload in that regard.

Objectivity in the final examination and the grading is ensured through the process of exam moderation, a review of the exam questions by another faculty member before the exam. Likewise, the grading is not done by the lecturer of the respective module but by another

faculty member. All other examinations within the semester are administered and conducted by the module lecturer themselves, but no queries are voiced by the students and, on the contrary, the regular feedback given on the exam performance is stressed as valuable input for improvement. Clear instructions to the staff for the supervision of examinations ensure fairness and accountability during the exams. The students' rights and responsibilities for exams, including penalties and appeal procedures, are outlined in the academic misconduct policy as well as the examination regulations. To accommodate students with special needs, the examination regulations also contain the provision that all examination forms "shall be adapted to suit the condition of the disability without compromising the course learning outcomes". The experts positively highlight these policies for ensuring fairness and transparency.

Since 2024, SQU has employed a fixed grading scale based on which the examinations are graded. For postgraduate programmes, the minimum passing threshold is 60 out of 100 points, as outlined in the corresponding College decree:

Grade	%	Performance
A	≥ 90	Excellent
A-	≥ 85	
B+	≥ 80	Very good
B	≥ 75	
B-	≥ 70	
C+	≥ 65	Good
C	≥ 60	
F	< 60	Fail

However, the experts note that the grading scale contained in the module descriptions deviates from this scheme. This is required to be clarified respectively harmonised.

In case of failure of an exam, the entire module needs to be repeated. However, as the students explain, this rarely happens as the multiple examination components help to out-balance grades. The experts critically mention that there is no option to repeat examinations but refrain from issuing formal action points as there is no problem in practice, apparently.

The final module and examination of the programme is the Master's thesis which consists of a comprehensive research project to be prepared under the supervision of at least one academic staff member. The programme coordinators stress the importance of the thesis within the research-oriented profile of the programme, and multiple thesis projects result in Scopus-indexed publications each year. Students can freely elect their thesis topic and

usually take part in one of the professors' research projects. Given the low number of overall students, the academic staff explains that they "compete" for the students to join their research groups. In this regard, it is also explained that there is no separate funding for thesis projects and that all materials and experiments need to be financed out of the budget of the project group. However, as not all professors at the university always have project grants (see chapter 3.3) or the funds are limited, the choice of thesis topics is restricted in practice. In that regard, the experts recommend improving the funding schemes for scholarships and Master's research projects to give students the freedom of choice for their projects. This will also benefit the broad research profile of the university. Thesis projects are assessed by a thesis committee appointed by the Head of Department, which consists of the supervisor, an external examiner from outside the Department of Chemistry who can also be from a different university in Oman or from abroad, and an internal examiner of the Department. During the on-site visit, the experts review samples of final theses and confirm their high quality which partly exceeds the common standard of Master's projects.

In summary, the experts confirm that there are module-specific exams that assess the extent to which the defined learning objectives have been achieved. The exam system is regulated by transparent provisions that ensure smooth exam organisation, objective assessment, and feasibility of the exam load. In that regard, the experts point out that the grading scale displayed in the module descriptions differs from the scale contained in the grading policy, which needs to be corrected. The experts further confirm that the programme contains a compulsory final thesis, the high quality of which represents the programme's research focus. However, to allow the students to freely choose their thesis project independently from the current funding situation of the different chairs, the experts recommend establishing better funding schemes and scholarships for research projects.

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

In its statement, SQU explains that there are different grading scales for undergraduate and postgraduate programmes, and that the grading scales outlined in the module descriptions are the ones for undergraduate programmes. This will be corrected in the documentation. The experts appreciate the clarification and consider this requirement to be fulfilled. However, the announced correction needs to be followed up as part of the review of the still required revision of the module descriptions (see chapter 3.1).

Final assessment:

Overall, the experts confirm that the exam system and its implementation adequately fulfil the accreditation criteria. Specific funding respectively scholarships for thesis projects should ensure the independence of available thesis options from ongoing research projects and funding of the professors (see also chapter 3.3).

In summary, the experts consider this criterion to be **fulfilled**.

### 3. Resources

#### Criterion 3.1 Staff and Development

**Evidence:**

- Self-Assessment Report
- Faculty handbook
- SQU academic promotion regulations
- Department of Chemistry staff website: <https://www.squ.edu.om/science/Departments/Chemistry/Staff/Staff>
- SQU funding website: <https://www.squ.edu.om/research/For-Researchers/Apply-for-Funding>
- Examples of annual reports of the Dean for postgraduate studies and research
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

According to the Self-Assessment Report, SQU's Department of Chemistry has 30 permanent positions, 29 of which are currently filled. Their profiles, including educational background, work history, and fields of work, are documented in the faculty handbooks as well as on the staff website of the Department of Chemistry. These, however, are very heterogeneous, partly missing, and offer information of strongly varying quality and quantity. The experts suggest harmonising this for the benefit of both the public appearance of the university, as well as for better usability for university stakeholders. The academic staff members are classified into different levels of professors according to their experience and working time at SQU, and the academic promotion regulations transparently define the criteria for career advancement. All staff members of the department are PhD holders, most of whom completed their degrees at prestigious universities abroad, among others in the United States, Canada, England, and Germany. As the experts note, a majority of staff members are foreign nationals who are attracted to work at SQU with attractive working conditions and remuneration. The teaching load of professors is 9 credit hours per

semester as regulated by a university policy, including lecture and tutorial hours, administrative duties related to the course implementation, committee work, and student supervision. In addition to the permanent staff, there are visiting lecturers. The academic staff is supported by multiple technicians specialised in different laboratories. The experts are satisfied with the composition, professional orientation, and qualification of the teaching staff, which adequately covers all fields of the curriculum and enables a qualitative guidance and supervision of the students.

All staff members are actively engaged in research projects, and research output is one of the staff's key performance indicators. Journal publications in Q1 and Q2 journals are financially rewarded. As the staff members explain, the time available for research depends on the semester plan but, usually, there is at least one day per week without teaching duties, which can be mainly spent on research. Especially Master's, but also Bachelor's students are actively incorporated in the research projects of the professors, which benefit both the staff as well as the students to advance their projects, skill development of the students, and research output. Overall, the staff members express their satisfaction with the workload and work environment, both in terms of teaching and research, which is also reflected in the notable list of publications and conference participations documented in the annual reports of the Dean for postgraduate studies and research. This Dean's office also provides different guidance offers for researchers, including the mediation of grants and support for the application of different external funds. As the staff members explain, SQU's internal funding schemes are primarily designated for the support of junior staff members to advance their scientific records, while projects of full professors cannot be funded under these schemes but have to engage in very competitive third-party grant competitions or raise funds through international research cooperations, e.g. with institutions in Qatar and the UAE. Staff members whose projects are not funded are usually integrated into the project groups of other professors.

Further development measures for junior staff members include a structured onboarding and introduction into the university and teaching organisation. New staff members are accompanied and supervised during their first lectures and initially are assigned only a reduced teaching load to get used to the university, which the experts consider reasonable. Besides this, the university's Centre of Excellence in Teaching and Learning offers different continuous learning opportunities. As the teaching staff explain during the on-site visit, structured further education is mandatory for SQU's academic staff, and takes the form of annual workshops and courses. Examples of recent years include the topics of active learning and Artificial Intelligence, which is considered useful by the staff.

The staff is evaluated every year based on their performance in terms of the predefined staff key performance indicators. These, among others, also consider the feedback of

students regarding the teaching quality which is gathered through the module surveys. Teachers with low scores are convened for discussions with the Dean to identify the reasons for low scores and find solutions for improvement. The student liaison committee may also be involved in this process.

In summary, the experts confirm that the composition, professional orientation, and qualification of the teaching staff are suitable for successfully delivering the degree programme. The staff actively engages in research which contributes to their daily teaching, especially for the Master's students. Moreover, the staff members have different opportunities for both personal and professional development, which also includes mandatory measures to advance the teaching methodology for the benefit of the students. The staff performance and qualification is continuously monitored. To strengthen the department's public image and information quality in terms of the staff, the experts suggest harmonising the external presentation of the staff member profiles on the staff website.

### **Criterion 3.2 Student Support and Student Services**

#### **Evidence:**

- Self-Assessment Report
- SQU postgraduate study regulations
- International student guidebook
- Deanship of student affairs' website: <https://www.squ.edu.om/student-affairs/Departments/Deans-Office/Student-Services-Center>
- Discussions during the on-site visit

#### **Preliminary assessment and analysis of the experts:**

Support staff of the Department of Chemistry include one superintendent, 14 technicians and two coordinators who are mainly responsible for guiding and supporting students in their practical laboratory activities. In particular, complicated and expensive analytical instrumentation is operated by expert staff, which perform the analyses for the students, and hand out and help with the interpretation of the results. The skills development department of the university also centrally organises support courses for students like workshops for the use of the central research lab. Within the Department of Chemistry, there are designated study spaces and learning rooms. Students confirm their overall satisfaction with these support services and affirm that, regarding academic issues, their thesis supervisors are the first persons of reference. The high quality of the completed theses show that academic support for students is implemented well. During the audit, the experts get

the notion of a close and respectful relationship between students, staff, and faculty administration which benefits academic success.

University-integrated student support facilities are administered and implemented by the Dean of Student Affairs. This office has installed the student services centre as a central contact point for student support, as well as the student advisory council. Services include administrative support, the mediation of financial grants, student housing, religious counselling, cultural and sports activities, as well as the provision of the campus bus. Information about support offers for different kinds of problems is contained in the postgraduate regulations. For international students, the international student guidebook offers essential information on the university's organizational structures and available support services.

In summary, the experts confirm that there is an adequate student support system which helps students in achieving the PLOs and completing the programme within the designated study duration.

### Criterion 3.3 Funds and equipment

#### Evidence:

- Self-Assessment Report
- SQU safety guidelines for chemistry laboratories
- CAARU website: <https://www.squ.edu.om/science/Units/CAARU>
- SQU library website: <https://www.squ.edu.om/libraries>
- Discussions during the on-site visit

#### Preliminary assessment and analysis of the experts:

As a state university, SQU is mainly financed by public funds. A minor source of income of the university are tuition fees which, however, are limited because many students, especially in the Bachelor's programmes, receive university scholarships or at least partial tuition waivers. The basic facilities of the Department of Chemistry are maintained directly by the university. As the university representatives explain, this also includes a recent project for the innovation and renovation of the chemistry laboratories and classrooms of the department. The annual faculty budget therefore mainly serves the procurement of consumables as well as capital equipment investments. During the on-site visit, the experts learn that the provision of some important consumables is a critical issue for the Department of Chemistry, as international restrictions for the trade and shipping of these consumables to the Gulf area make the procurement of these chemicals difficult and expensive, which can also lead to delays of Master's thesis projects. However, the experts gain the impression

that there is good support for the students in these situations to find the best possible solutions.

Experts find it more problematic that there is no dedicated budget available to fund Master's thesis projects (see also chapter 1.3). Because of the necessary consumables, these projects can be very expensive and, currently, need to be solely financed out of the available funds and research grants of the respective supervising professor. However, as noted earlier in this report, the availability of these resources depends on the funding raised by the professors, which is in many cases, are too limited to finance the additional expenses of Master's projects. The experts find that this significantly limits the opportunity for students to choose the topic of their Master's project according to their interest and ability, which may also hinder the department in advancing research in all the fields covered by the staff. To improve this situation, the experts strongly recommend setting up designated funding schemes for Master's research project consumables and to expand scholarships.

During the on-site visit to SQU's extensive campus facilities, the experts inspect multiple laboratories of the department, which are used for both teaching and research, and confirm that they are adequately equipped for the implementation of education and research. However, the experts note that, despite the confirmation of staff and students that safety protocols are in place, as e.g. published on the department's website, and that there is a safety demonstration at the beginning of every lab course, safety measures are not consequently implemented. Noted concerns include the correct storage and labelling of chemicals and materials (which is also necessary after their extraction from the original container), inadequate cleaning of work areas and fume hoods in some cases, and failure to wear safety goggles in teaching practice rooms. In that regard, the expert requires SQU to ensure that staff and students comply with applicable safety and personal protective measures in the laboratories.

Besides the department laboratories, there is the ISO certified central analytical applied research unit (CAARU), which is administered by the College of Science which is the higher administrative level uniting all science departments. This laboratory unit provides access to high-quality and state-of-the-art equipment and is operated by trained specialists who provide analytical services to all departments. The experts positively acknowledge this lab which provides good conditions for research purposes.

The Department of Chemistry's library is fully integrated into the central library of SQU which is located on the campus. The experts visit the library which provides access to an impressive range of physical and digital books, articles, databases, and AV media, as outlined in this table taken from the library website:

Resource Types		No.	Total
Books (2025)	Printed	201,329	488,474
	Electronic	287,145	
Electronic Periodicals (2025)	80,000		80,000
Theses (2025)	Printed	1,705	4,128,555
	Electronic	4,126,850	
Databases (2025)	Arabic	7	59
	English	52	
AV media (2025)	Arabic	1,998	8,587
	English	6,589	

There are extensive reading and work spaces for individual groups and students. Moreover, the library offers different seminars and training sessions regarding the use of media, scientific work with sources, as well as digitalisation and AI. The students confirm their satisfaction with the library and the overall access to literature, both on campus and from different locations, which satisfies the experts.

In terms of digital facilities, SQU uses a Moodle-based information system for the organisation of module information, the distribution of lecture materials, and the implementation of e-learning tools and online exams.

In summary, the experts confirm that the programme delivery is guaranteed by secure funding and reliable financial planning of the programme, and sufficient subject-specific as well as supporting infrastructure. However, the experts noted multiple violations of basic laboratory safety measures and therefore require SQU to ensure that all students and staff members know and abide the safety protocols. Moreover, they recommend the improvement of scholarships and funding schemes for Master's projects to enable students to choose their thesis topics independently from the current availability of resources of the professors.

### **Final assessment of the experts after the comment of the Higher Education Institution regarding criterion 3:**

#### Criterion 3.3:

The experts appreciate SQU's commitment to following up safety violations regulations more thoroughly and implement measures to ensure their abidance. Still, during the visit to the teaching and research laboratories, weaknesses in abiding the existing guidelines and regulations were noticed repeatedly in various safety-related aspects. This concerns, for example, deficits in storage and labelling of hazardous substance containers, the somewhat negligent implementation of personal protective measures, and in some cases a clear

need to improve of the cleanliness and order of the research laboratories. This goes further than just addressing students to abide the rules and implementing punitive measures otherwise but concerns all university entities involved in handling materials. The experts therefore reformulate the initial requirement to implement new or evaluate existing measures to ensure compliance with applicable laboratory safety and personal protective requirements.

Moreover, the Department commits to acquiring better funding schemes for consumables needed for thesis projects to allow students independence in their choice of subject. The experts appreciate this commitment but decide to formalise the initial recommendation as an argument for the Department.

Final assessment:

Overall, the experts are highly satisfied with the quantity and qualification of the teaching staff that enables the delivery of high-quality education and student support. Also, the general facilities and laboratories are adequate for the relevant teaching and research purposes. However, the experts see the need for better policies regarding lab safety respectively a stricter implementation of the existing policies to ensure the adequate and safe handling of materials at all levels of involved university entities.

In summary, the experts consider this criterion to be **almost fulfilled**.

## 4. Transparency and Documentation

### Criterion 4.1 Module Descriptions

**Evidence:**

- Self-Assessment Report
- Module descriptions
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

According to the Self-Assessment Report, the university has adopted a unified outline for the module descriptions which lists all information components as required by the ASIIN criteria in 2017. As the students confirm, the module descriptions are accessible via the university's internal academic information system. In that regard, the experts wonder why the module descriptions provided in the documentation were structured very differently, incomplete, and contained a lot of ambiguous and outdated information. The programme coordinators explain that the module descriptions are deliberately kept broad so that each

module can be adjusted to current priorities and the specific interests of both the lecturer and the students. While the experts consider this valuable on the micro-level, they point out that the overall structural, organisational, and content-wise framework of each module needs to be clearly defined, as a consistent and specific documentation is crucial for both the university-internal processes as well as the external representation and recognition of the programme. Therefore, they require SQU to update and harmonise the module descriptions of all modules. Moreover, to improve the transparency of the programme, they recommend publishing the module descriptions on the programme's website to make them accessible to all external stakeholders and interested third parties.

#### **Criterion 4.2 Diploma and Diploma Supplement**

**Evidence:**

- Self-Assessment Report
- Example of Diploma Certificate and Transcript of Records

**Preliminary assessment and analysis of the experts:**

According to the Self-Assessment Report, a Diploma Certificate and Transcript of Records are issued shortly after graduation. As evidenced by respective examples, the Diploma Certificate is provided in both English and Arabic, while the Transcript of Records is fully in English. While the experts are generally satisfied with the format and information provided, they notice that the title of the Master's thesis is not outlined on the transcript. As this gives essential information about a graduate's area of specialisation, the experts require SQU to include the title of the thesis on the Transcript of Records. Moreover, they recommend to directly outlining not only the SQU credit hours but also the corresponding ECTS numbers on the Transcript, which will ease international credit transfer and recognition.

Besides this, the experts note the existence of a Diploma Supplement which was not provided in the documentation. It is a crucial part of the graduation documents to issue a comprehensive Diploma Supplement that provides information on the student's qualifications profile and individual performance compared to a group, as well as the classification of the degree programme with regard to the respective education system. The Diploma Supplement must also contain information about the applied credit system, and the conversion rules, respectively transfer mechanisms to ECTS. In that regard, the experts exemplarily point towards the Europass sample templates for Diploma Supplements, which provide a harmonised and widely recognised structure of this document.

<b>Criterion 4.3 Relevant Rules</b>
-------------------------------------

**Evidence:**

- Self-Assessment Report
- Academic regulations for postgraduate studies
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

The baseline regulatory framework for the Master's programme is the handbook of academic regulations for postgraduate studies issued by the Dean of Postgraduate Studies. Further complementing regulations are defined and published at different levels and by different units of the university, colleges, and departments. During the on-site visit, the students confirm the transparency and accessibility of these regulations which clearly outline the rights and duties of both the university and the students. However, to improve transparency and information quality for external stakeholders, the experts recommend distinguishing the Master's programme and the PhD programme on the website of the Department of Chemistry. Currently, both these programmes are displayed on the same page which makes it difficult to assign information, documentation, and corresponding links, like e.g. about the admission criteria and processes, correctly.

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

This criterion is not addressed in the university's statement.

Final assessment:

Overall, the experts stress the importance of a coherent, transparent, and up-to-date documentation of the programme through module descriptions and graduation documents. In that regard, further action of SQU is necessary. The experts formalise all initial requirements and recommendations.

In summary, the experts consider this criterion to be **not fulfilled**.

## 5. Quality management: quality assessment and development

<b>Criterion 5 Quality management: quality assessment and development</b>
---

**Evidence:**

- Self-Assessment Report
- Programme Quality Assurance Process Information Sheet
- Accreditation certificate by the Royal Society of Chemistry and corresponding process documentation
- Programme accreditation manual of the Oman Academic Accreditation Authority
- Examples of meeting minutes of the College of Science Quality Assurance and Accreditation Unit
- SQU Quality Assurance Office website: <https://www.squ.edu.om/qao/>
- Discussions during the on-site visit

**Preliminary assessment and analysis of the experts:**

SQU elaborates in the Self-Assessment Report that the programme is subject to internal quality assessment procedures aiming at continuous improvement. The quality assurance system incorporates elements of both internal and external quality assurance. All responsibilities and mechanisms defined for continued development are binding.

The internal quality assurance activities are overseen by SQU's university-level Quality Assurance Office. In addition, the College of Science has an own Quality Assurance and Accreditation Unit, and various boards and committees at different levels unite different university stakeholders to discuss critique and improvement measures. Multiple elements of internal quality assurance processes are outlined in various parts of this report. The PLOs and programme structure are reviewed every five years by the Chemistry Post-graduate Committee. The Curriculum Committee must first approve new courses which can be proposed by staff members. Students are involved in the assessment through the online student course and teaching survey every semester. Personal complaints or suggestions can be directly voiced to the lecturers or ultimately the Head of the department or the Dean. As the experts positively acknowledge, the students are also directly represented to the university's higher administration through the elected Student Advisory Board. During the on-site interview, the students confirm their involvement in the development of the programme, explain that the university is generally very responsive to their comments, and state that they are also informed about the results of the surveys which satisfies the experts. External stakeholders are theoretically also involved in the programme

development; however, as outlined in chapter 1.1, the industrial stakeholder board is not active in practice anymore. This should be addressed, and the experts emphasize the recommendation to better integrate industrial stakeholders in the programme development and implementation.

In terms of external quality assurance, all study programmes in Oman are subject to periodic national accreditation by the Oman Academic Accreditation Authority. Moreover, the Department of Chemistry also engages in international accreditation for the benefit of external recognition and quality development. The Master's in Chemistry programme was accredited by the Royal Society of Chemistry from 2015 to 2020. As the university representatives explain, a reaccreditation was not done, respectively postponed due to the Covid-19 pandemic back at the time. The Master's in Chemistry is now subject to international accreditation by ASIIN for the first time.

In summary, the experts confirm that the study programme is subject to periodical internal quality assurance and that the results of these processes are incorporated in the further programme development. The quality assurance processes and responsibilities are defined. Students are actively involved in the processes and the feedback loop back to the students is closed. However, the involvement of external stakeholder should be reactivated in strengthened in practice.

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

This criterion is not addressed in the university's statement.

Final assessment:

Overall, the experts confirm their assessment and consider this criterion to be **fulfilled**.

## E Additional Documents

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

- Exemplary Diploma Supplement

## F Comment of the Higher Education Institution (11.01.2026)

The following quotes the statement of the institution:

### 1. “The Degree Programme: Concept, Content & Implementation

**Criterion 1.1** Objectives and Learning Outcomes of a Degree Programme (Intended Qualifications Profile)

The Department will pursue via the proper channels (Assistant Dean of Science for Alumni and training) to implement a “tracer study” which would provide the M.Sc. in Chemistry Programme adjustment and improvement on the Programme.

The Department assisted by the College of Science Deanship intends to reconstitute the “Industrial Advisory Board” which should involve stakeholders from relevant industries in the sultanate. The aim of such a goal as outlined in the draft accreditation report is to:

- 1) sharpen the programme’s external profile and recognition
- 2) strengthen the curriculum content
- 3) enhance relevance to the local market
- 4) improve curriculum relevance and adaptability
- 5) foster practical and applied learning
- 6) expand employment opportunities for graduates

### **Criterion 1.3** The Curriculum

The Department will ensure that module descriptions (course outlines) are revised and updated and include the fact that the M.Sc. in Chemistry is mainly a research-oriented programme.

### **Criterion 1.4** Admission Requirements

The Department via the College of Science Deanship will raise the matter of further internationalization of the M.Sc. in Chemistry programme and further financial support for those enrolled in the programme.

### **Criterion 1.5 Workload and Credits**

The structured modular credit hours (24 credit hours, 12 core and 12 elective) are based as the draft accreditation report states on an outdated definition of a credit hour.

In general, and under the existing definition of a 3 credit hours module, an M.Sc. student expands seven and a half hours of preparation and study after the weekly 3 credit hours. This amounts to a total of ten and a half hours including class attendance per module. Therefore, an M.Sc. student registered in 3 modules per semester (9 credit hours) expands an average of thirty-one and half weekly hours. Assuming there are only 14 functioning weeks per semester out of the 15 official weeks (allowing for Holidays and exam time), a student registered in 3 modules (9 credit hours) expands four hundred and forty one (441 hours) actual hours in class attendance, study and preparation per semester.

Therefore, an M.Sc. candidate invests four hundred and forty one hours for the first semester (3 modules), and another four hundred and forty one hours for the second semester (3 modules) without doing any practical research towards the M.Sc. dissertation during the first and second semesters.

During the summer session after the first year, M.Sc. candidates are eligible to register in CHEM 7002 (6 credit hours) and start their practical research work under the supervision of a faculty member whom each candidate has chosen. An M.Sc. candidate spends an average of six hours per day, five days a week for three months doing actual practical research. This amounts to three hundred and sixty hours (360 hours) of research work during the first summer session.

During the second year of studies (third semester), an M.Sc. candidate registers in one module and invests one hundred and forty seven semester hours (147 hours) for that one module. The same is true for the fourth semester.

The 6 credit hours Masters Thesis registration (CHEM 7002) during the second year of studies (third and fourth semesters) amounts to the following. The M.Sc. candidate spends an average of six hours per day for five days a week doing actual practical research (hypothesis, experiment, result, analysis). This amounts to thirty practical hours a week on top of the ten and a half hours a week for the one registered module.

In summary, an M.Sc. candidate spends the following hours:

Semester 1: four hundred and forty one hours (3 modules)

Semester 2: four hundred and forty one hours (3 modules)

Summer Session 1: three hundred and sixty hours (CHEM 7002)

Semester 3: one hundred and forty seven hours (1 module) in addition to four hundred and twenty practical research hours (CHEM 7002)

Semester 4: one hundred and forty seven hours (1 module) in addition to four hundred and twenty practical research hours (CHEM 7002)

Summer Session 2: three hundred and sixty hours (CHEM 7002)

A M.Sc. candidate invests one thousand one hundred and seventy six hours (1,176 hours) attending, preparing and studying for the 8 required modular courses. In addition to that, an M.Sc. candidate for his/her CHEM 7002 invests over a period of two semesters and two summer sessions an average of one thousand five hundred and sixty hours (1,560 hours) performing practical research.

Sultan Qaboos University is in the “**process**” of transforming its existing credit hour definition and allocation to conform to the OQF terms. This process will take time but it will be implemented.

Based on the aforementioned, we are confident that an SQU M.Sc. in Chemistry candidate’s workload per semester meets and exceeds the ECTS requirements.

#### **Criterion 1.6 Didactic and Teaching Methodology**

The Departmental Curriculum Committee will explore the possibility of introducing elements of practical laboratory work and research methodology in the structured learning modular activities.

## **2. Exams: System, Concept and Organization**

#### **Criterion 2 Exams: System, Concept and Organization**

The Department Head will instruct and ensure that postgraduate module course outlines contain the grading scale specified by the College of Science for postgraduate courses and not the grading scale for undergraduate courses.

The Department has asked and will continue to ask for better funding and more scholarships for the Masters in Chemistry program.

## **3. Resources**

#### **Criterion 3.3: Funds and Equipment**

The Department acknowledges the fact that unsupervised final year research project students tend to violate safety regulations especially regarding protective eyewear. The Departmental Safety Committee will address this issue and implement punitive measures for violators.

The Department will ask for setting up designated funding schemes for Master's research project consumables and more scholarships for the Masters in Chemistry program.”

---

## G Summary: Expert recommendations (02.02.2026)

Taking into account the additional information and the comments given by SQU, the experts 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
Ma Chemistry	With requirements for one year	30.09.2031	Euromaster®	30.09.2031

### Requirements

- A 1. (ASIIN 1.5) Transparently evaluate the student workload and allocate credits accordingly.
- A 2. (ASIIN 3.3) Implement new or evaluate existing measures to ensure compliance with applicable laboratory safety and personal protective requirements.
- A 3. (ASIIN 4.1) Update and harmonise the module descriptions of all modules.
- A 4. (ASIIN 4.2) The thesis title needs to be outlined on the Transcript of Records.
- A 5. (ASIIN 4.2) Issue a comprehensive Diploma Supplement that provides information on the student's qualifications profile and individual performance compared to a group, as well as the classification of the degree programme with regard to the respective education system. The Diploma Supplement must also contain information about the applied credit system, and the conversion rules respectively transfer mechanisms to ECTS.

### Recommendations

- E 1. (ASIIN 1.1/ 5) It is recommended to better integrate industrial stakeholders in the programme development, and implement a tracer study to track the progress of the graduates.
- E 2. (ASIIN 1.3/ 1.4) It is recommended to foster student mobility, especially by attracting international students for the MSc programme.

- E 3. (ASIIN 1.6) It is recommended to include more elements of laboratory work and research methodology in compulsory and/or elective modules.
- E 4. (ASIIN 2/ 3.3) It is recommended to improve the funding schemes for scholarships and Master's research projects. Students should be free in their choice in which field to do their thesis.
- E 5. (ASIIN 4.1) It is recommended to publish the module descriptions on the programmes' website.
- E 6. (ASIIN 4.2) It is recommended to outline the ECTS credit numbers on the Transcript of Records.
- E 7. (ASIIN 4.3) It is recommended to distinguish the Master's and PhD programmes on the department website.

---

## H Comment of the Technical Committee 09 – Chemistry, Pharmacy (16.03.2026)

*Assessment and analysis for the award of the ASIIN seal:*

Overall, the panel of experts was satisfied with the course, although the safety standards left something to be desired. In addition, conditions were imposed regarding the verification of the student workload, the module descriptions, the Transcript of Records and the Diploma Supplement. Following a brief discussion, the Technical Committee approved the requirements relating to these five points, as well as the seven recommendations.

*Assessment and analysis for the award of the Euromaster®Label:*

The Technical Committee deems that the intended learning outcomes of the degree programme do comply with the fields of knowledge set by ECTNA.

The Technical Committee 09 – Chemistry, Pharmacy recommends the award of the seals as follows:

<b>Degree Programme</b>	<b>ASIIN Seal</b>	<b>Maximum duration of accreditation</b>	<b>Subject-specific label</b>	<b>Maximum duration of accreditation</b>
Ma Chemistry	With requirements for one year	30.09.2031	Euromaster®	30.09.2031

# I Decision of the Accreditation Commission (27.03.2026)

*Assessment and analysis for the award of the ASIIN seal:*

The AC discusses the procedure and generally agrees with the recommendation of the experts and the TC. It emphasises the importance of a structured and transparent documentation of the programme for both internal as well as external stakeholders. In that regard, the recommendation to publish the module description is converted into a requirement merged with A3. Also, relating the credit system and workload, it is additionally required to document the total number of ECTS point equivalents in the final documentation. Related to the recommendation to display the ECTS equivalents for all individual modules is amended, as this is of particular importance for the thesis.

*Assessment and analysis for the award of the Euromaster®Label:*

The Accreditation Commission deems that the intended learning outcomes of the degree programme do comply with the fields of knowledge set by ECTNA.

The Accreditation Commission decides to award the following seals:

Degree Programme	ASIIN Seal	Maximum duration of accreditation	Subject-specific label	Maximum duration of accreditation
Ma Chemistry	With requirements for one year	30.09.2031	Euromaster®	30.09.2031

## Requirements

- A 1. (ASIIN 1.5) Transparently evaluate the student workload and allocate credits accordingly.
- A 2. (ASIIN 3.3) Implement new or evaluate existing measures to ensure compliance with applicable laboratory safety and personal protective requirements.
- A 3. (ASIIN 4.1/4.3) Update and harmonise the module descriptions of all modules and make them accessible to all stakeholders.
- A 4. (ASIIN 4.2) The thesis title needs to be outlined on the Transcript of Records.

- A 5. (ASIIN 4.2) Issue a comprehensive Diploma Supplement that provides information on the student's qualifications profile and individual performance compared to a group, as well as the classification of the degree programme with regard to the respective education system. The Diploma Supplement must also contain information about the applied credit system, and the conversion rules respectively transfer mechanisms to ECTS.
- A 6. (ASIIN 4.2) Show the whole ECTS points equivalence for the programme in the final documents.

### **Recommendations**

- E 1. (ASIIN 1.1/ 5) It is recommended to better integrate industrial stakeholders in the programme development, and implement a tracer study to track the progress of the graduates.
- E 2. (ASIIN 1.3/ 1.4) It is recommended to foster student mobility, especially by attracting international students for the MSc programme.
- E 3. (ASIIN 1.6) It is recommended to include more elements of laboratory work and research methodology in compulsory and/or elective modules.
- E 4. (ASIIN 2/ 3.3) It is recommended to improve the funding schemes for scholarships and Master's research projects. Students should be free in their choice in which field to do their thesis.
- E 5. (ASIIN 4.2) It is recommended to outline the ECTS credit numbers on the Transcript of Records for each module, especially the thesis.
- E 6. (ASIIN 4.3) It is recommended to distinguish the Master's and PhD programmes on the department website.

## Appendix: Programme Learning Outcomes and Curricula

According to the website of the Department of chemistry, the following **objectives** and **learning outcomes (intended qualifications profile)** shall be achieved by the Master's degree programme in Chemistry:

Upon successful completion of the programme, graduates will be able to:

- demonstrate advanced knowledge of Chemistry.
- obtain and use appropriate information from the scientific literature.
- Ability to plan and execute experiments safely and taking into consideration environmental impacts.
- work within a team to achieve a common goal.
- have independent research and problem solving skills.
- effectively communicate orally and in writing.
- pursue doctoral studies in chemistry and related disciplines.
- think critically and independently.
- have the ability to write research proposals.

The following **curriculum** is presented:

<b>MSc Core Courses</b>		
CHEM 6615	Advanced Inorganic Chemistry	3
CHEM 6625	Advanced Organic Chemistry	3
CHEM 6636	Advanced Physical Chemistry	3
CHEM 6641	Advanced Methods in Analytical Chemistry	3
CHEM 7002	MSc Thesis	6
<b>Total</b>		<b>18</b>

<b>MSc Elective Courses</b>		
	<b>One advanced courses from CHEM 5xxx level</b>	
CHEM 6612	Topics in Inorganic Chemistry II	3
CHEM 6613	Topics in Inorganic Chemistry III	3
CHEM 6622	Aspects of Organic Synthesis	3
CHEM 6635	Special Topics in Physical Chemistry I	3
CHEM 6642	Advanced Environmental Chemistry	3
CHEM 6623	Organic Materials in Industry	3
CHEM 6632	Lasers and their Chemical Applications	3
CHEM 6633	Dynamics of Molecular Energy Transfer	3
CHEM 6634	Computational Chemistry	3
CHEM 6643	Spectrochemical Analysis	3
<b>Total</b>		<b>12</b>