**Shatt Al-Arab University** **جامعة شط العرب**

# Self-assessment Report in Light of Program Accreditation for Higher Education Institutions in Iraq

## Shatt al-Arab University

**2024-2025**


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## 1. Introduction

Based on the directives of His Excellency the Minister of Higher Education and Scientific Research regarding the development of universities and educational institutions, and in an effort to achieve global quality and accreditation standards, and based on the Computer Science Department's commitment to establishing and implementing quality practices to support the university's mission in achieving its strategic objectives and enhancing its global standing, a self-evaluation report has been prepared.

This report is a comprehensive study of various academic and administrative activities and functions. It was conducted in accordance with the academic accreditation standards of the ABET program. It takes into account the department's mission and objectives, provides an in-depth analysis supported by conclusions, evidence, and proof, and draws on the opinions of specialists capable of providing objective and independent feedback.

The self-evaluation is an effective tool for reviewing the department's strengths and weaknesses, and it is the responsibility of all faculty and administrative staff to conduct it scientifically and objectively. The report aims to enhance academic performance by implementing necessary adjustments, enhancing strengths, and addressing weaknesses, thus contributing to the achievement of ABET accreditation requirements. The report also provides a comprehensive overview of the department's educational activities, services, and programs, in addition to assessing student performance and identifying their needs for training courses and development programs. This is to ensure the quality of the department's outputs and the continuity of effective quality processes and procedures.

The self-evaluation has already been implemented in the Computer Science Department at Shatt al-Arab University according to ABET standards, with the evaluation results documented for the department's various areas, supported by evidence and documents that can be consulted by the Quality Assurance and Academic Performance Division.

The self-evaluation report is a comprehensive document covering the following aspects:

1. Educational Program Objectives: This criterion relies on developing a strategic plan in accordance with the educational program's objectives and the institution's mission and vision to achieve the desired goals of this program.
2. Educational Program Outcomes: In this criterion, the educational program must have published documents announcing the qualifications of its graduates, provided that these qualifications are consistent with the objectives of the previously prepared educational program.
3. Curriculum: This standard must provide a comprehensive educational framework that develops graduates' ability to apply knowledge and skills to address scientific issues.
4. Continuous Improvement: The educational program must have an appropriate, documented, and ongoing evaluation process to determine the extent to which learning outcomes are achieved.
5. Students: This standard must clarify the admission policy for new and transfer students.
6. Academics and Faculty: This standard must demonstrate that faculty members possess sufficient academic competencies to cover all curricular areas of the program and maintain their presence.
7. Administrative Support: Focuses on developing faculty members, providing administrative support, and facilitating their work through staff, administrators, and technical support staff.
8. Financial Support: This standard represents the environment that fosters all activities undertaken by the academic institution, including teaching, learning, scientific research, and community service. 9- Facilities and Services: This standard focuses on providing classrooms, laboratories, offices, and all other facilities-

necessary for an effective and encouraging academic environment that supports the achievement of graduation outcomes.

9. Facilities and Services: This standard focuses on providing classrooms, laboratories, offices, and all other facilities necessary for an effective and encouraging academic environment that supports the achievement of graduation outcomes.

## About Shatt Al-Arab University

The university began its academic journey with the establishment of Shatt Al-Arab University College in Basra Governorate on October 5, 1993, pursuant to Order No. (M F/568). When it was founded, the college had only four departments. The college is recognized by the Ministry of Higher Education and Scientific Research and is one of the oldest private colleges in Basra Governorate and the fifth oldest in Iraq.

The college aims to raise the scientific and cultural level in Iraq in general, and in the city of Basra in particular, by supplying the labor market in the public and private sectors with scientific competencies and distinguished expertise from its graduates.

Since its establishment, Shatt al-Arab College has undergone multiple stages of development, until it was converted into “Shatt al-Arab University” by Ministerial Order No. (T H A/16006) dated 7/28/2024, thus beginning a new phase of scientific and urban progress.

The university currently comprises six faculties, including thirteen scientific departments, and is working to establish new departments in the coming years to keep pace with the requirements of the labour market and modern academic developments.

## 2. Self-Evaluation Report Writing Procedures

**First:** Under the supervision of the Assistant President for Academic Affairs, meetings and workshops were held by the Quality Assurance Department with the quality units in the colleges to prepare the report.

**Second:** Individual meetings were held with the heads of the university's administrative departments.

**Third:** Official letters were sent to the university's administrative departments to collect priorities.

**Fourth:** Approval and review of the university's administrative database to collect priorities.

**Fifth:** Formation of a report-writing committee pursuant to Administrative Order No. 104 dated February 11, 2025, which includes

**Self-assessment report preparation committee**

| Name | Place of Work | Position |
|---|---|---|
| Lecturer Dr. Maha Qasim Muhammad | Assistant Dean and Academic Officer | as a member |
| Lecturer Dr. Ali Kazim Matar | Head of the Computer Science Department | as a member |
| Assistant Lecturer: Mohammed Asaad Hussein | Member of the Quality Assurance Division | as a member |
| Assistant Lecturer: Fatima Nizar | Representing the Faculty | as a member |
| Assistant Lecturer: Karar Ali | Secretary of the College Council | as a member |

## Support Team

Quality Assurance Unit at the College of Science.

# Chapter One

## Descriptive Information for the Academic Program of the Computer Science Department:

The Computer Science Department at Shatt al-Arab University in Basra Governorate is located in the first complex in the Andalusia neighbourhood. The university is currently in the final stages of constructing an integrated complex in the Jubaila area in accordance with quality and national classification standards.

**Name of Institution:** Department of Computer Science

**Type of Institution:** Scientific Department in a Private Institution

**Year of Establishment:** 1996

**Name of Ministry to which it is affiliated:** Ministry of Higher Education

**Date of Last Review for Accreditation Purposes:** 10/8/2024

**Website:** https://sa-uc.edu.iq/ar

**Duration of Initial Studies to Obtain a Bachelor's Degree:** (4 years)

**Language of Instruction:** English

**Degree Awarded by the Department:** Bachelor's in Computer Science

**Number of Department Council Members:** 19

**Academic Leadership:**

• Asst. Dr. Ali Kazim Matar / Head of Department

• Asst. M. Muntadhar Muslim Ashour / Department Rapporteur

## Department Vision

To achieve a distinguished position by preparing competent programmers equipped with programming knowledge, innovative skills, and practical training, through the adoption of an academic program that meets national and international standards in the field of computer science.

## Department Mission

The department works to prepare graduates in the field of specialization, equipping them with the principles of knowledge, scientific and logical thinking, and scientific research skills in computer science. They also possess the skills necessary for future communication with the community in various fields of work. This qualifies them to address programming problems and provide technical advice in areas of expertise such as artificial intelligence, information technology, networks, and others. This qualifies them to work in computer science, meet the demands of the labor market, conduct theoretical and applied research, and provide technological consulting services to various sectors of society.

## Department Objectives

- Achieving quality and academic accreditation at the local and international levels.

- Preparing graduates specialized in computer science who contributes positively to society.

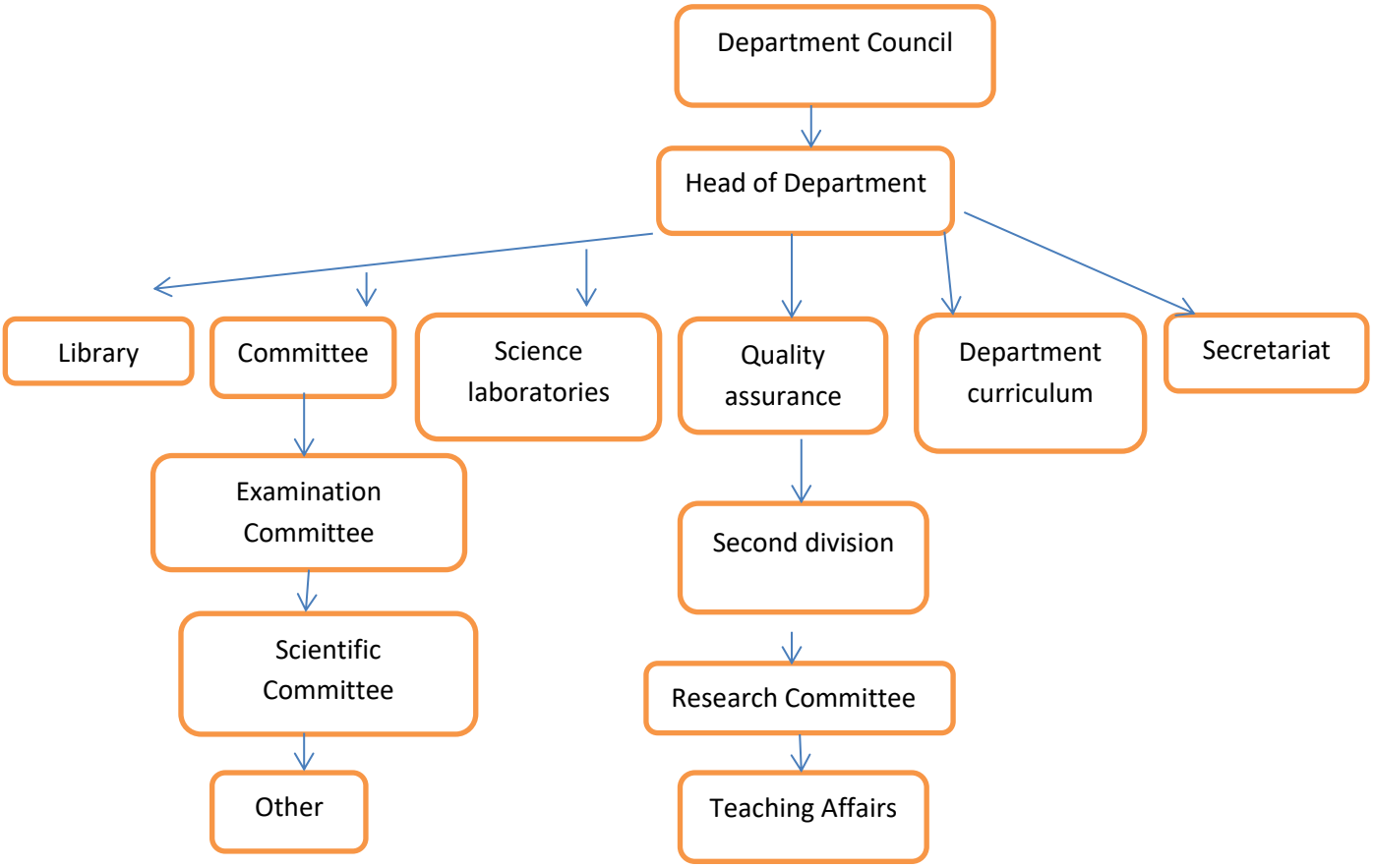
- Supporting students' ability to connect theoretical knowledge with practical application and developing their capacity for scientific research, innovation, and continuous learning.

- Meeting the needs of educational institutions with highly qualified staff.

- Encouraging scientific research and publication by faculty members in respected scientific journals.

- Achieving scientific communication and exchange of expertise with specialists in various fields of computer science at the local and international levels.

# Organizational and administrative structure of the Department of Computer Science



## Faculty members

| Name | Academic title | General specialization | Subspecialty | Certificate |
|---|---|---|---|---|
| Prof. Dr. Basem Sahar Yassin | Professor | Computer Science | Cipher Security and Networks | PhD |
| Asst. Prof. Haider Nasser Khuraibat | Assistant Professor | Computer Science | Artificial intelligence | PhD |
| Lec.Dr. Ali Kazim Matar | lecturer | Computer Science | Computer Security | PhD |
| Lec.Dr. Maha Qasim Mohammed | lecturer | Computer Science | Medical visualization | PhD |
| Ass.lec.Jawad Kazim Hussein | Assistant Lecturer | Computer Science | networks | Master's |
| Ass.lecFatima Nizar Hamza | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecMahmoud Ali Shaker | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecKarar Ali Abdullah | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecHaider Shaker Hashim | Assistant Lecturer | Computer Science | vision computer | Master's |
| Ass.lecMohammed Asaad Hussein | Assistant Lecturer | Computer Science | cipher security | Master's |
| Ass.lecFarah Alaa Mohammed | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecMontazer Muslim Ashour | Assistant Lecturer | Computer Science | Computer Information Systems | Master's |
| Ass.lecAseel Jassim Mohammed | Assistant Lecturer | Computer Science | Wireless Sensor Network Security | Master's |
| Ass.lecHiam Abbas Qasim | Assistant Lecturer | Computer Science | Computer Information Systems | Master's |
| Ass.lecMustafa Sobhi Salman | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecLina Gamal Mohsen | Assistant Lecturer | Computer Science | cipher security | Master's |
| Ass.lecMustafa Hamed Hashem | Assistant Lecturer | Science Computer | Information technology | Master's |
| Ass.lecHussein Mazen Mohammed | Assistant Lecturer | Computer Science | Information technology | Master's |

| | | | | |
|---|---|---|---|---|
| Ass.lecHajar Saheb Shanawa | Assistant Lecturer | Computer Science | Electrical Engineering | Master's |

## Technical and administrative staff according to job description

| Name | Certificate | Job description |
|---|---|---|
| Amani Nizar Abbas | Bachelor of Arts in Arabic Language | Secretary to the Head of Department |
| Ali Raad | Bachelor of Computer Science | Research Assistant |
| Sari Sarkis | Bachelor of Computer Science | Research Assistant |
| Ibrahim Jaafar | Bachelor of Computer Science | Research Assistant |
| Mohamed Salah | Bachelor of Computer Science | Research Assistant |
| Khalaf Mohammed Khalaf | Bachelor of Computer Science | Research Assistant |
| Safaa Asaad Mahdi | Bachelor of Communications Engineering | Research Assistant |

## Computer Science Department Student Numbers 2024-2025

| the total | Evening study | | Morning study | | stage |
|---|---|---|---|---|---|
| | females | Males | females | Males | |
| 201 | 38 | 44 | 42 | 77 | First |
| 195 | 43 | 44 | 24 | 84 | Second |
| 132 | 12 | 56 | 22 | 42 | Third |
| 112 | 20 | 64 | 11 | 17 | Fourth |

# Chapter Tow

## ABET Program Accreditation Standards

### ABET Standards

As part of the College of Science's commitment to achieving academic quality standards, the Computer Science program was selected for ABET accreditation under the direct supervision of the Dean of the College and his assistants. Strategic plans were developed to implement this vital project, in addition to holding introductory workshops on accreditation requirements.

### What is ABET?

The Accreditation Board for Engineering and Technology (ABET) is an American non-governmental organization that grants accreditation to academic programs in the fields of engineering, technology, and computer science. It is a global standard for ensuring the quality of academic programs. ABET accreditation provides assurance that a program meets the required educational and professional standards, enhancing its international credibility.

### The Importance of ABET Accreditation for the Computer Science Program:

• Academic Quality Assurance: Ensuring that the program meets modern learning standards and prepares graduates for the job market with high efficiency.

• Enhancing Employability for Graduates: Accreditation gives graduates a competitive advantage when applying for jobs globally, as it is an important criterion for employment.

• Supporting Continuing Education and Self-Development: Ensures that graduates have the ability to continuously learn independently and adapt to rapid technological developments.

• Raising employer confidence: This enhances the program's credibility with companies and institutions seeking qualified talent according to international standards.

• Achieving academic excellence standards: This helps improve and develop curricula in line with recent developments in computer science.

### Department evaluation to achieve quality standards:

A comprehensive study was conducted to assess the department's position and its compliance with the required quality standards. This was achieved through:

1. Academic program objectives: Aligning objectives with labor market requirements and improving learning outcomes.
2. Program outcomes: Ensuring that modern scientific and applied requirements are met.
3. Curricula: Updating scientific and practical content to keep pace with recent developments.

4. Continuous quality improvement: Implementing review and development systems to ensure sustainable improvement.
5. Students: This includes evaluating admission policies, graduation, and academic activities.
6. Faculty: Supporting academic staff and developing their teaching and research skills.
7. Administrative support: Strengthening partnerships with academic and industrial institutions to ensure continuous development.
8. Financial Support
9. Facilities and Services: Advanced laboratories and technological equipment to support the educational process.

This approach aims to raise the level of education in the Department of Computer Science and enhance the ability of graduates to compete globally by achieving the highest standards of academic accreditation.

## Assessing the Current Status of the Computer Science Department and its Achievement of Quality Standards:

As part of the Department of Computer Science's efforts to achieve academic quality standards and ABET accreditation, a comprehensive study was conducted to assess the department's current status and its compliance with quality requirements. This study relied on a thorough analysis of various academic and administrative aspects, as well as a review of the experiences of regional and international universities, with the goal of improving performance, developing curricula, and enhancing learning outcomes

## The Importance of Implementing Quality Standards

The department is committed to developing a comprehensive quality management system to ensure continuous improvement of the educational process, in line with the standards of the Ministry of Higher Education and Scientific Research and the Department of Quality Assurance and Academic Accreditation. This approach contributes to achieving compliance with international academic standards and enhancing the program's credibility at the local and international levels.

## Department Evaluation Criteria

The study was organized according to nine main criteria to assess the department's achievement of academic quality standards:

1. **Academic Program Objectives**

- Analyzing the program's objectives and their alignment with the requirements of the computer science labour market.
- Enhancing learning strategies to ensure high-quality educational outcomes.

- Developing sustainable development plans that align with the latest trends in the specialty.

2. **Program Outcomes**

- Ensuring that graduates possess the technical and scientific competencies necessary to keep pace with modern developments.
- Enhancing applied skills in fields such as programming, data analysis, artificial intelligence, and cybersecurity.

3. **Continuous Quality Improvement Axis**

- Conducting periodic evaluations of teaching curricula and educational technologies used.
- Implementing continuous review systems to ensure sustainable improvement in department performance.

4**. Student Axis**

This axis includes an assessment of student-related aspects, such as:

- Admission and graduation policies and their alignment with quality requirements.
- Academic activities that support the development of students' technical and research skills.
- Training and qualification programs to enhance students' readiness for the job market.

5. **Academics and Faculty Axis**

- Supporting the development of faculty members' teaching and research skills.
- Promoting the use of modern teaching methods based on innovation and technology.
- Encouraging participation in scientific conferences and academic research to enhance the department's research standing.

6. **Administrative Support Axis**

- Enhancing cooperation with academic and industrial institutions to provide training and research opportunities for faculty members.
- Supporting joint research projects between the department and government and private entities.
- Ensuring continuous development through effective institutional support plans.

7. **Financial Support Axis**

- Supporting the educational institution with financial resources and constructive leadership.
- Ensuring the sustainability of the educational program.
- Supporting decisions related to services.

8. **Facilities and Services Axis**

- Providing comfortable classrooms and developing laboratories to support a sophisticated learning environment.
- Providing advanced software and technological tools to meet the needs of students and scientific research.
- Improving access to digital resources and e-libraries to enhance self-learning.

## Objective of the Evaluation

This evaluation aims to enhance the quality of education in the Computer Science Department at Shatt al-Arab Private University, achieve academic accreditation according to ABET standards, and ensure the qualification of graduates capable of competing in the global labour market. Through these steps, the department seeks to create an integrated educational environment that supports creativity and innovation, contributing to the preparation of highly qualified technical personnel capable of keeping pace with rapid technological developments.

## The first and second criteria: the objectives and outcomes of the study program

### Computer Science Department Student Admission Requirements

The Department of Computer Science accepts students from the science stream as well as graduates of industrial secondary schools.

## Educational objectives of the academic program

The Computer Science program aims to prepare students to become specialists capable of applying their technical knowledge and skills in the fields of programming, artificial intelligence, data analysis, and information security. The program focuses on developing students' scientific and research capabilities, enabling them to address computational problems in innovative ways and fostering a spirit of teamwork.

## Program Objectives:

1. Developing analytical and logical thinking skills:

- Enabling students to grasp advanced concepts in computer science, including advanced programming, algorithms, and software engineering.
- Enhancing their ability to analyze and solve technical problems using the latest tools and techniques.

2. Encouraging research, development, and exposure to modern technology:

- Providing opportunities for students and faculty members to participate in scientific conferences and workshops inside and outside Iraq.
- Cooperating with research institutions and advanced technical centers to exchange expertise and benefit from the latest technologies.
- Encouraging students and faculty members to publish their scientific research in prestigious scientific journals.

3. Developing curricula in accordance with labour market requirements:

- Periodically updating curricula to keep pace with rapid developments in the field of information technology.
- Incorporating specialized courses in cloud computing, artificial intelligence, cybersecurity, and big data analysis.

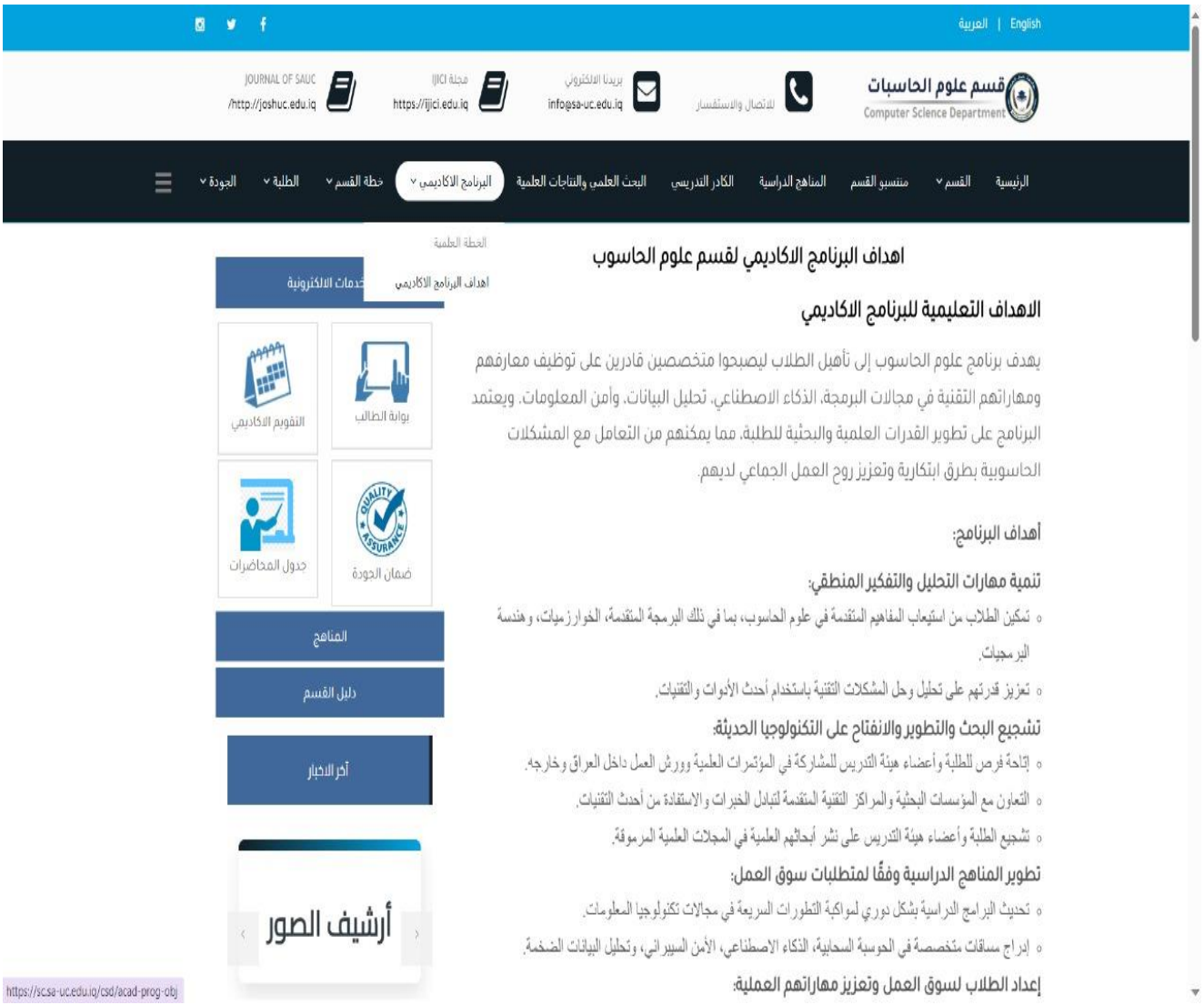
4. Preparing students for the labour market and enhancing their practical skills:

- Implementing training programs in cooperation with technology companies, providing students with opportunities for practical training and direct application of acquired knowledge.
- Motivating students to implement graduation projects that align with the needs of the local and international market.

5. Motivating students to innovate and engage in entrepreneurship:

- Encouraging students to develop innovative software projects and provide technical solutions that contribute to improving various sectors.
- Supporting entrepreneurial projects and providing an environment conducive to innovation in the field of technology.

**The objectives of the academic program are written and announced to everyone on the university's websites and also in its various offices...**



## Beneficiaries of the Academic Program:

1. **Faculty members:**

- They continuously strive to improve the quality of education by updating teaching methods and participating in scientific research.
- They work as an integrated team to provide a distinguished educational experience for students.

2. **Students:**

- They are prepared to become successful researchers and professionals in various computing fields.
- They receive ongoing academic support and guidance to help them achieve their educational and professional goals.

3. **Graduates:**

- They are prepared to be qualified to work in various technical sectors, whether in companies, government institutions, or research institutions.
- They have the ability to develop their careers based on the skills and experience they acquired during their studies.

4. **Employers and technical institutions:**

- They rely on the department's graduates to fill specialized technical positions, reflecting the quality of education and training provided by the program.
- They are satisfied with the academic program's success in meeting the needs of the labor market. The quality of the academic program is continuously verified and improved through student, faculty, and alumni surveys, as well as employer evaluations, to ensure the best educational experience that keeps pace with the latest developments in computer science.

## The Computer Science's Academic Program

The Computer Science Department's academic program awards a Bachelor's degree in Computer Science based on the annual system. The study period extends over four years, divided into four consecutive academic stages. Students must complete all academic requirements for each academic stage, ensuring that the total number of credit hours is consistent with academic quality standards. This includes theoretical lectures, practical lessons, and research projects .to ensure they acquire the required knowledge and skills before graduation

## First Stage

| | subject | units |
|---|---|---|
| 1 | Structured Programming | 8 |
| 2 | Mathematics | 6 |
| 3 | Computer Techniques | 6 |
| 4 | Logic Design | 8 |
| 5 | Discrete Structures | 6 |
| 6 | Human Rights | 4 |

## Second Stage

| | subject | units |
|---|---|---|
| 1 | Object Oriented Programming | 6 |
| 2 | Advanced Mathematics and Numerical Methods | 6 |
| 3 | Systems Analysis & Design Database Systems | 6 |
| 4 | Data Structures | 6 |
| 5 | Freedom & Democracy | 4 |
| 6 | Computational Theory | 6 |
| 7 | Computer Architecture & Assembly Language Programming | 6 |

## Third Stage

| | subject | units |
|---|---|---|
| 1 | Compilers | 6 |
| 2 | Artificial Intelligence | 6 |
| 3 | Information Theory | 4 |
| 4 | Operations Research | 6 |
| 5 | Computer Architecture | 6 |
| 6 | Software Engineering | 4 |
| 7 | Computer Graphics | 6 |

## Fourth Stage

| | subject | units |
|---|---|---|
| 1 | Computer & Data Security | 6 |
| 2 | Operating Systems | 6 |
| 3 | Computer Simulation | 4 |
| 4 | Fuzzy Logic & Research Project | 6 |
| 5 | Intelligence Applications | 6 |
| 6 | Computer Communication And Networks | 6 |
| 7 | Advanced Windows And Programming | 6 |

## Academic Program Outcomes

The program outcomes are listed below. Successful graduates will acquire all the skills and knowledge listed, achieving the program's objectives. Based on this concept, graduates should possess the following knowledge:

- Possess a broad and detailed understanding of computer science, including artificial intelligence, data analysis, software engineering, information security, and computer networks.

- Possess a comprehensive knowledge of concepts, algorithms, and programming languages, as well as the fundamentals of computer systems and databases.
- The ability to analyse, designs, and innovate in the fields of software development, data processing, technical problem solving, and information security enhancement.

# Performance Indicators for the First Standard: Educational Objectives of the Program

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity: Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Strategic planning The objectives of the educational program correspond to the mission of the educational institution | 1.1.1 | There is a vision of the educational program. | ✓ | ✓ | Totally | Attch. 1 |
| | | 1.1.2 | There is a message for the educational program. | ✓ | ✓ | Totally | Attch. 1 |
| | | 1.1.3 | There are goals for the strategic educational program. | ✓ | ✓ | Totally | Attch. 1 |
| 2 | Strategic planning | 1.2.1 | The objectives of the educational program are connected with the mission of the faculties of Science and are well documented. | ✓ | ✓ | Totally | Attch. 2 |
| 3 | The objectives of the educational program correspond to the mission of the educational institution | 1.3.1 | Periodic review of the objectives of the educational program with the participation of Target groups. | ✓ | ✓ | Totally | Attch. 3 |
| | | 1.3.2 | Periodically review the objectives of the educational program and adjust them according to the requirements of the labor market. | ✓ | ✓ | Totally | Attch. 3 |
| | | 1.3.3 | Periodically review and amend the objectives of the educational program while maintaining compliance with the mission of the educational institution. | ✓ | ✓ | Totally | Attch. 1+3 |

## Performance indicators for the second standard: educational program outcomes.

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Approved learning outcomes | 2.1.1 | There is feedback that confirms the ability to distinguish, identify, define, formulate, and solve scientific problems by applying the principles of Science in all the scientific disciplines referred to in this manual. | ✓ | ✓ | **Totally** | **Attach16** |
| | | 2.1.2 | There is feedback confirming the ability to apply and use these Sciences in solving field problems and presenting them to society. | ✓ | **x** | **Not applied** | |
| | | 2.1.3 | There is feedback confirming the ability to create and implement appropriate scientific tests with quality assurance, analyze and interpret the results | ✓ | ✓ | **Totally** | **Attach 16+17** |
| | | 2.1.4 | There is feedback that confirms the ability to | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | skillfully and smoothly communicate verbally with a group of people and write to various management levels | ✓ | x | **Not applied** | |
| | | 2.1.5 | There is feedback that confirms the ability to realize moral and professional responsibilities towards society. | ✓ | x | **Not applied** | |
| | | 2.1.6 | There is feedback confirming the ability to work adequately within a scientific team, set goals, plan activities, meet due dates and manage risks from work. | ✓ | ✓ | **Totally** | **Attach 4+18** |
| | | 2.1.7 | It is necessary to keep abreast of the development in the use of modern techniques, skills, and technology. | ✓ | ✓ | **Totally** | **Attach 5** |
| | | 2.1.8 | Determine, enforce, and document graduation procedures so that students who graduate meet all the requirements | ✓ | ✓ | **Totally** | **Attach 6** |
| 2 | Linking the learning outcomes with the objectives of the educational program | 2.2.1 | Linking the learning outcomes mentioned above with the objectives of the educational program announced and documented in advance by the faculties of Science and their councils | ✓ | ✓ | **Totally** | **Attach 6+7** |

# Criterion Three: Curricula

Academic Programs Offered in the Computer Science Department

## Curricula

**Academic Program Description**

- **University Name:** Shatt al-Arab University
- **College/Institute:** College of Science
- **Academic Department:** Department of Computer Science
- **Academic Program Name:** Bachelor of Computer Science
- **Final Degree Name:** Bachelor of Computer Science
- **Academic System:** The college currently offers three systems (semester, annual, and Bologna)
- **Date of Description Preparation:** 2024
- **Date of File Completion:** 2024

## Program Vision

To exert unremitting efforts to excel in disseminating knowledge and serving the community in the fields of computer science, including artificial intelligence, data science, information security, and software engineering. This is done with the goal of enhancing the academic and research performance of faculty members and students, and achieving leading levels of innovation and technological development.

## Program Mission

The educational program's mission is to update and disseminate knowledge in the field of computer science, with a focus on developing students' potential and honing their talents through efforts to enhance their technical and research skills. The department also seeks to empower students with distinguished professional experience, providing them with promising opportunities locally and globally, and contributing to advancing technological and societal progress.

## The academic program objectives of the Computer Science Department:

1. To comprehensively study computer science from both theoretical and applied perspectives, and to understand its technologies and uses in society.
2. To prepare distinguished academic and practical cadres capable of working in the fields of artificial intelligence, data science, cybersecurity, and software engineering.
3. To provide students with the technical skills necessary to use modern devices and equipment, this can be employed in their studies and scientific research.
4. To enable students to acquire advanced academic knowledge in various computer science specialties and their practical applications.
5. To provide government institutions and the private and mixed sectors with specialized cadres in the fields of programming, data analysis, systems development, and information security.
6. To continuously research and keep pace with recent developments in computer science, and to incorporate them into curricula to enhance the quality of education and scientific research.
7. To achieve quality and academic accreditation at the local and international levels.

## Academic program structure

| Structure | Program | Teaching Unit | Percentage | Notes |
|---|---|---|---|---|
| **Institutional Requirements** | **2** | **8** | **5.20%** | |
| **College Requirements** | **3** | **14** | **9.20%** | |
| **Department Requirements** | **24** | **136** | **85.50%** | |
| **Summer Training** | | | | The student is applying for summer training in the sixth semester. |
| **Other** | | | | |

## Academic program description

| **Expected learning outcomes of the program** |
|---|
| **Knowledge:** |
| Students who obtain a Bachelor's degree in Computer Science are expected to have acquired the following skills:<br><br>1. Acquire basic concepts in computer science, including algorithms, data structures, networks, artificial intelligence, and information security, with a focus on classifying and understanding different types of systems and software.<br><br>2.Develop applied skills in data analysis, systems design, and software development, using the latest technologies and software |

analysis tools.

3.Apply modern techniques in data processing and evaluating the performance of software systems, with a focus on analyzing and solving various technical problems.

4.Work to develop innovative technical solutions to various challenges in the fields of programming, cybersecurity, and artificial intelligence, while adhering to quality and digital safety standards.

5.Employ advanced tools and software in testing environments and practical applications, while adhering to best computing practices and technical work ethics.

**Skills:**

1. The student will be able to analyze and design software systems and IT applications.
2. The student will be able to work in technical laboratories and IT and programming institutions, such as software companies and research and development institutions.
3. The student will be able to work in technical and research institutions that rely on data analysis, artificial intelligence, and software engineering.
4. Assessment Methods:
5. Pop-up exams to measure rapid understanding of basic concepts in programming and data structures.
6. Quarterly exams to assess technical skills and knowledge acquired in fields such as programming, data analysis, and information security.
7. General and transferable skills related to the ability to be employed in multidisciplinary IT environments.

**Evaluation methods:**

- Pop-up exams to measure rapid understanding of basic programming and data structures concepts.
- Quarterly exams to assess technical skills and acquired knowledge in areas such as programming, data analysis, and information security.
- General and transferable skills related to employability in multidisciplinary IT environments.

**Values:**

- The ability to provide effective technical solutions to complex technical problems facing society and the environment, taking into account economic and ethical dimensions.
- The ability to work effectively within a multidisciplinary team, respecting the roles of colleagues in technical work environments.
- The ability to communicate effectively with individuals in technical and Professional work environments, promoting joint collaboration and knowledge sharing.

**Teaching and learning strategies:**

Theoretical and practical lectures - applied - daily assignments and discussions.

**Evaluation methods**

| |
|---|
| Exams - Assignments - Daily Homework - Discussions - Graduation Project Report |
| **Professional development** |
| • Faculty Guidance: Providing ongoing academic guidance through training courses and workshops to improve teaching methods and learning techniques.<br>• Holding Training Workshops and Dialogue Sessions: Organizing specialized workshops and scientific sessions aimed at improving teaching skills and academic interaction.<br>• Teaching Modern Teaching Methods: Enhancing faculty members' understanding of modern teaching methods and innovative educational technologies to achieve optimal educational outcomes.<br>• Promoting a culture of continuous professional development: Encouraging faculty members to continuously improve and seek new ways to enhance their academic performance.<br>• Providing Mentoring Programs: Offering mentoring programs aimed at helping faculty members overcome academic and professional challenges and enhancing their ability to communicate with students. |
| **Acceptance criteria** |
| Central Admission |
| **The most important sources of information about the program** |
| Program development through:<br>• **Higher directives**<br>• **New scientific developments in the field** |
| **Program Development Plan** |
| • **Teamwork: The ability to work effectively and actively within a group, contributing to the achievement of shared goals, while respecting the perspectives of others and supporting productive collaboration.**<br>• **Time Management: The ability to manage time effectively, prioritize, maintain work discipline, and organize appointments to ensure timely completion of tasks.**<br>• **Preparing Scientific Research and Reports: The ability to conduct scientific research and accurately analyze events, as well as provide constructive criticism of the topics presented, and document findings in a scientific and professional manner.** |

## Basic requirements structure for laboratories

## Curriculum Alignment with Program Objectives

The college plays a key role in defining and reviewing academic program standards and ensuring the achievement of educational objectives. This includes ensuring that curricula align with the educational objectives defined in the program. It also ensures that curricula are aligned with the academic program objectives to achieve effective educational outcomes for students. This includes continuously monitoring the development of academic programs and ensuring that students' academic needs are met by providing curriculum that is aligned with the latest trends in science and research.

## Performance Indicators for the Third Standard: Curricula.

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | The structure of the educational program and its content | 3.1.1 | The presence of a detailed study plan for the program clarifies the subjects, their classification, and sequence, and also clarifies the number of hours of study expected from the student for the subject. | ✓ | ✓ | **Totally** | **Attach 6+8+25** |
| | | 3.1.2 | A flowchart or worksheet showing the structure of the basic requirements for the laboratories, workshops, and training required for the program should be available. | ✓ | ✓ | **Totally** | **Attach 8** |
| | | 3.1.3 | The educational program meets the requirements in terms of hours and units so that it reflects the depth of study for each of the scientific disciplines referred to above. | ✓ | ✓ | **Totally** | **Attach 6** |
| | | 3.1.4 | There is a description of the academic program of the course in a precise form, including a brief description of the course, learning outcomes, approved sources, and methods adopted in the course. | ✓ | ✓ | **Totally** | **Attach 6** |
| | | | The curriculum must be in line with the objectives of | ✓ | ✓ | **Totally** | **Attach 1+6** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2 | Linking the given curricula with the learning outcomes | 3.2.1 | the educational program and meet the requirements of the labor market and its needs. | | | | |
| | | 3.2.2 | The curriculum and the structure of the basic requirements associated with it should achieve learning results and develop the abilities and skills of graduates. | ✓ | ✓ | **Totally** | **Attach 1+6** |

## Criterion Four: Continuous Improvement

The Department of Computer Science at Shatt al-Arab University offers a program leading to a Bachelor of Science degree in Computer Science.

Program outcomes are reviewed annually with faculty members and relevant department committees. To support the program, the department plans to visit various offices, institutions, and private sector companies to gather their opinions on the department's graduates and their suggestions for program improvements.

## Student Opinion and Continuous Improvement Process:

A questionnaire is distributed to students in the department at all levels at the end of the academic year to assess the accuracy of teaching performance in the department. This questionnaire is based on the ministerial questionnaire, which consists of 10 items for the years (2023-2025), as shown below:

| ت | الفقرة | جيد جدا | جيد | متوسط | مقبول | ضعيف |
|---|---|---|---|---|---|---|
| 1 | يمهد للدرس ويراعي التسلسل في عرض الماد بطريقة منطقية ومشوقة | | | | | |
| 2 | ينوع اساليب وطرائق التدريس المختلفة داخل المحاضرة | | | | | |
| 3 | يحسن اساليب التعامل مع الطلبة ويراعي الفروق الفردية | | | | | |
| 4 | يشجع وينمي التعلم الذاتي عند الطلبة | | | | | |
| 5 | يستثمر الوقت داخل المحاضر في اثراء الماد العلمية | | | | | |
| 6 | يستخدم وسائل تقليدية والكترونية متنوعة في الاختبارات والتقييم | | | | | |
| 7 | يوفر انشطة تعاونية او تنافسية متنوعة لإثارة دافعية الطلبة | | | | | |
| 8 | بتابع مستوى الطلبة بصور مستمر لغرض تعزيز مواطن القوه ومعالجة مواطن الضعف لديهم | | | | | |
| 9 | يناقش اجابات الطلبة ويرد على استفساراتهم بمرونة لخلق بيئة تعليمية امنة | | | | | |
| 10 | ينمي الاتجاهات والعادات والاخلاق الحميد لدى الطلبة | | | | | |

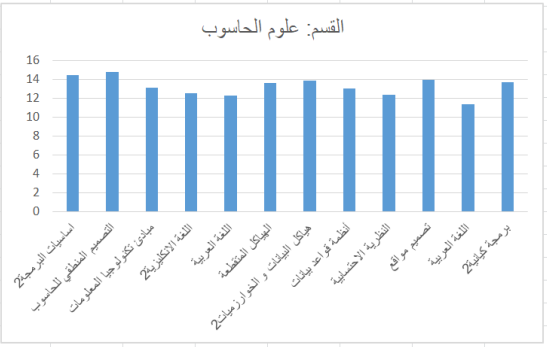
At the end of the educational program, the student's performance is evaluated by measuring their comprehension of the material and their ability to apply it practically. This evaluation serves as evidence of

the student's proficiency and the extent to which they have achieved the program's objectives. Additionally, the statistical results help determine the accuracy of their interaction with the course material and help identify any shortcomings in the course material that the student may encounter, providing an opportunity to address them and improve their learning.

Now, due to the implementation of the Bologna system, it follows the department follows the following plan to improve quality:

# Academic Performance Indicator Report

## 1. Student Feedback




| | | | |
|---|---|---|---|
| 58 | | | |
| 59 | | | |
| 60 | lumn1 | lumn2 | lumn3 |
| 58 | | | |
| 59 | lumn1 | lumn2 | lumn3 |
| 60 | الكلية:كلية العلوم | | |
| 61 | القسم: علوم الحاسوب | | |
| 62 | | | |
| 63 | **اسم المادة** | **المرحلة** | **الدرجة** |
| 64 | اساسيات البرمجة2 | الأولى | 14.457143 |
| 65 | التصميم المنطقي للحاسوب | الأولى | 14.8 |
| 66 | مبادئ تكنولوجيا المعلومات | الأولى | 13.085714 |
| 67 | اللغة الانكليزية2 | الأولى | 12.5 |
| 68 | اللغة العربية | الأولى | 12.257143 |
| 69 | الهياكل المتقطعة | الأولى | 13.571429 |
| 70 | هياكل البيانات و الخوارزميات2 | الثانية | 13.844444 |
| 71 | أنظمة قواعد بيانات | الثانية | 13 |
| 72 | النظرية الاحتسابية | الثانية | 12.366667 |
| 73 | تصميم مواقع | الثانية | 13.9 |
| 74 | اللغة العربية | الثانية | 11.377778 |
| 75 | برمجة كيانية2 | الثانية | 13.688889 |
| 76 | | | |

## 2. Department Head's Evaluation of The Lecturer

**تقييم رئيس القسم للعملية التعليمية والاستاذ الجامعي، حسب مواد المستوى الاول / الفصل الدراسي الاول**

| ت | اسم التدريسي | اللقب العلمي | الاختصاص العام | الاختصاص الدقيق | المادة الدراسية المكلف بتدريسها | #1 | #2 | درجة التقييم النهائي (من 20 درجة) |
|---|---|---|---|---|---|---|---|---|
| 1 | د. حيدر ناصر خريبط | أستاذ مساعد | علم الحاسوب | تنقيب بيانات | اساسيات البرمجة 1 | 10 | 10 | 20 |
| 2 | محمد اسعد حسين | مدرس مساعد | علم الحاسوب | الامن السيبراني | الرياضيات لعلوم الحاسوب | 10 | 10 | 20 |
| 3 | فرح علاء محمد | مدرس مساعد | علم الحاسوب | تكنولوجيا المعلومات | الديمقراطية وحقوق الانسان | 10 | 5 | 15 |
| 4 | جواد كاظم حسين | مدرس مساعد | علم الحاسوب | شبكات | مهارات الحاسوب | 10 | 10 | 20 |
| 5 | حيدر شاكر هاشم | مدرس مساعد | علم الحاسوب | تكنولوجيا المعلومات | التفكير الحاسوبي لحل المشاكل | 5 | 5 | 10 |
| 6 | د. حسين ناصر خلف | أستاذ مساعد | علم الكيمياء | كيمياء تحليلية فيزياوية | اللغة الانكليزية 1 | 10 | 10 | 20 |

**تقييم رئيس القسم للعملية التعليمية والاستاذ الجامعي، حسب مواد المستوى الاول / الفصل الدراسي الثاني**

| ت | اسم التدريسي | اللقب العلمي | الاختصاص العام | الاختصاص الدقيق | المادة الدراسية المكلف بتدريسها | #1 | #2 | درجة التقييم النهائي (من 20 درجة) |
|---|---|---|---|---|---|---|---|---|
| 1 | جواد كاظم حسين | مدرس مساعد | علم الحاسوب | شبكات | تصميم المنطق الرقمي | 10 | 10 | 20 |
| 2 | د. حيدر ناصر خريبط | أستاذ مساعد | علم الحاسوب | تنقيب بيانات | اساسيات البرمجة 2 | 10 | 10 | 20 |
| 3 | محمد اسعد حسين | مدرس مساعد | علم الحاسوب | الامن السيبراني | الهياكل المتقطعة | 10 | 10 | 20 |
| 4 | هاجر صاحب | مدرس مساعد | الهندسة الكهربائية والالكترونية | طاقة متجددة | مبادئ تكنولوجيا المعلومات | 10 | 10 | 20 |
| 5 | د. حسين ناصر خلف | أستاذ مساعد | علم الكيمياء | كيمياء تحليلية | اللغة الانكليزية 2 | 10 | 5 | 15 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | فيزياوية | | | | |

**الابعاد الفرعية وقيمها القصوى للجدول اعلاه :**

1#. الالتزام برسالة القسم ورؤيته (10 درجات).
2#. دعم استراتيجية القسم نحو بيئة تعليمية جيدة (10 درجات)

**تقييم رئيس القسم للعملية التعليمية والاستاذ الجامعي، حسب مواد المستوى الثاني / الفصل الدراسي الاول**

| ت | اسم التدريسي | اللقب العلمي | الاختصاص العام | الاختصاص الدقيق | المادة الدراسية المكلف بتدريسها | #1 | #2 | درجة التقييم النهائي (من 20 درجة) |
|---|---|---|---|---|---|---|---|---|
| 1 | حسين مازن محمد | مدرس مساعد | علم الحاسوب | امنية بيانات | البرمجة الكيانية 1 | 10 | 10 | 20 |
| 2 | مصطفى حامد هاشم | مدرس مساعد | علم الحاسوب | امنية المعلومات | هياكل البيانات والخوارزميات 1 | 10 | 10 | 20 |
| 3 | د. مها قاسم محمد | مدرس | علم الحاسوب | التصور الطبي | تحليل وتصميم الانظمة | 10 | 10 | 20 |
| 4 | حيدر شاكر هاشم | مدرس مساعد | علم الحاسوب | شبكات | تنظيم ومعمارية الحاسوب | 5 | 5 | 10 |
| 5 | محمد اسعد حسين | مدرس مساعد | علم الحاسوب | الامن السيبراني | الاحتمالية والاحصاء | 10 | 10 | 20 |
| 6 | زرقاء محمد علي | مدرس مساعد | اللغة العربية | الصوت | جرائم البعث | 10 | 10 | 20 |

**تقييم رئيس القسم للعملية التعليمية والاستاذ الجامعي، حسب مواد المستوى الثاني / الفصل الدراسي الثاني**

| ت | اسم التدريسي | اللقب العلمي | الاختصاص العام | الاختصاص الدقيق | المادة الدراسية المكلف بتدريسها | #1 | #2 | درجة التقييم النهائي (من 20 درجة) |
|---|---|---|---|---|---|---|---|---|
| 1 | حسين مازن محمد | مدرس مساعد | علم الحاسوب | امنية بيانات | البرمجة الكيانية 2 | 10 | 10 | 20 |
| 2 | مصطفى حامد هاشم | مدرس مساعد | علم الحاسوب | امنية المعلومات | هياكل البيانات والخوارزميات 2 | 10 | 10 | 20 |
| 3 | د. باسم سهر ياسين | استاذ | علم الحاسوب | امنية بيانات | النظرية الاحتسابية | 10 | 10 | 20 |
| 4 | د. مها قاسم محمد | مدرس | علم الحاسوب | التصور الطبي | انظمة قواعد البيانات | 10 | 10 | 20 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5 | منتظر مسلم عاشور | مدرس مساعد | علم الحاسوب | امنية معلومات | تصميم المواقع | 10 | 10 | 20 |
| 6 | د. فاضل اسماعيل خليل | أستاذ مساعد | علوم شرعية | الحديث النبوي الشريف | اللغة العربية | 10 | 5 | 15 |

**الابعاد الفرعية وقيمها القصوى للجدول اعلاه :**

1#. الالتزام برسالة القسم ورؤيته (10 درجات).
2#. دعم استراتيجية القسم نحو بيئة تعليمية جيدة (10 درجات)

## 3. Teacher Bag Evaluation

**تقييم رئيس القسم لحقيبة الاستاذ ، للمستويين الاول والثاني للسنة الدراسية 2025/2024**

| ت | اسم التدريسي | اللقب العلمي | الاختصاص العام | الاختصاص الدقيق | #1 | #2 | #3 | #4 | #5 | #6 | درجة التقييم النهائي (من 65 درجة) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | د. حيدر ناصر خريبط | أستاذ مساعد | علم الحاسوب | تنقيب بيانات | 10 | 5 | 12 | 5 | 4 | 0 | 36 |
| 2 | محمد اسعد حسين | مدرس مساعد | علم الحاسوب | الامن السيبراني | 7 | 5 | 12 | 5 | 4 | 0 | 33 |
| 3 | فرح علاء محمد | مدرس مساعد | علم الحاسوب | تكنولوجيا المعلومات | 4 | 5 | 12 | 5 | 4 | 0 | 30 |
| 4 | جواد كاظم حسين | مدرس مساعد | علم الحاسوب | شبكات | 7 | 5 | 12 | 5 | 4 | 0 | 33 |
| 5 | حيدر شاكر هاشم | مدرس مساعد | علم الحاسوب | تكنولوجيا المعلومات | 4 | 5 | 12 | 5 | 4 | 0 | 30 |
| 6 | د. مها قاسم محمد | مدرس | علم الحاسوب | التصور الطبي | 7 | 5 | 12 | 5 | 4 | 0 | 33 |
| 7 | هاجر صاحب | مدرس مساعد | الهندسة الكهربائية والالكترونية | طاقة متجددة | 6 | 5 | 12 | 5 | 4 | 0 | 32 |
| 8 | د. حسين ناصر خلف | أستاذ مساعد | علم الكيمياء | كيمياء تحليلية فيزياوية | 4 | 5 | 12 | 5 | 4 | 0 | 30 |
| 9 | حسين مازن | مدرس | علم | امنية | 4 | 5 | 12 | 5 | 4 | 0 | 30 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | محمد | مساعد | الحاسوب | بيانات | | | | | | | |
| 10 | مصطفى حامد هاشم | مدرس مساعد | علم الحاسوب | امنية المعلومات | 4 | 5 | 12 | 5 | 4 | 0 | 30 |
| 11 | د. باسم سهر ياسين | استاذ | علم الحاسوب | امنية بيانات | 7 | 5 | 12 | 5 | 4 | 0 | 33 |
| 12 | منتظر مسلم عاشور | مدرس مساعد | علم الحاسوب | امنية معلومات | 7 | 5 | 12 | 5 | 4 | 0 | 33 |
| 13 | د. فاضل اسماعيل خليل | أستاذ مساعد | علوم شرعية | الحديث النبوي الشريف | 4 | 5 | 12 | 5 | 4 | 0 | 30 |
| 14 | زرقاء محمد علي | مدرس مساعد | اللغة العربية | الصوت | 4 | 5 | 12 | 5 | 4 | 0 | 30 |

**الابعاد الفرعية وقيمها القصوى للجدول اعلاه :**

#1.واجبات ومسؤوليات أعضاء هيئة التدريس (10 درجات)
#2.كفاءة المعلم في تحقيق مهارات ومعارف وقيم معينة (5 درجات)
#3.التدريب والتعليم المستمر (20 درجة)
#4.رؤية الجامعة في البحث والتطوير ودعم القطاعات العلمية والصناعية (20 درجة)
#5.النشاط الدولي (8 درجات)
#6.دعم إيرادات الجامعة (درجتان)

## Performance indicators for the fourth standard: continuous improvement

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity: Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Achieving teaching and learning outcomes | 4.1.1 | The presence of indicators to measure learning outcomes for all courses of the educational program | ✓ | ✓ | Totally | Attach 4 |
| | | 4.1.2 | The presence of records documenting students 'completion of all program courses with students' theoretical and practical tests for reference when evaluating. | ✓ | ✓ | Totally | Attach 9 |
| | | 4.1.3 | The reports submitted about the program must be reviewed annually by the scientific committees and acted upon. | ✓ | ✓ | Totally | Attach 7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 4.1.4 | Documentation and maintenance of evaluation procedures and results. | ✓ | ✓ | **Totally** | **Attach 10** |
| 2 | Actions for continuous improvement | 4.2.1 | Document the actions taken to make improvements when problems are detected through comprehensive program evaluations, which should be conducted once every four years | ✓ | ✓ | **Totally** | **Attach 11** |
| | | 4.2.2 | The presence of feedback from and to all beneficiaries concerned with the outputs of the students of the undergraduate students to achieve the objectives of the educational program. | ✓ | ✓ | **Totally** | **Attach 12** |
| | | 4.2.3 | The presence of feedback to benefit from the opinions of students and graduates on the extent to which the target learning outcomes have been achieved. | ✓ | ✓ | **Totally** | **Attach 12** |
| | | 4.2.4 | Involve all faculty members in the program in self-evaluation processes, provided that weaknesses are identified by those responsible for the program, and take advantage of them in review processes and performance improvement. | ✓ | ✓ | **Totally** | **Attach 13** |
| | | | The existence of a quality management system with evidence and documentation on how to | ✓ | ✓ | **Totally** | **Ataach 10+11+13** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 4.2.5 | conduct a program quality assessment and improvement, how the results of improvement are re-evaluated, and how | | | | |

# Criterion Five: Students

## Student Admission and Registration Mechanism

The university's admission capacity is determined and then submitted to the Ministry for the necessary official approvals. The required documents for registration are completed through the Registration Division of the Deanship of the College of Computer Science. Applications are submitted to the college, and students are allocated to its departments according to their admission capacity, taking into account the student's desire and the possibility of transferring from one department to another according to an ascending or descending order within the college.

## Graduation requirements for undergraduate students in Computer Science include the following:

1. Academic Success: Passing all required courses in the major, with a minimum passing score of 50% of the total grade in each course.
2. .Practical Training: The student must complete a period of practical training at a technical institution, such as software companies, data centers, or computing laboratories. This helps enhance their practical skills and prepare them for the job market.
3. Graduation Project: The graduation project is a basic requirement for obtaining a bachelor's degree. The student must complete a research or applied project in one of the fields of computer science, demonstrating their understanding of the acquired knowledge and their ability to apply it to solving computational problems.
4. Academic Advising: Students are provided with support and guidance through specialized committees within the department, providing them with academic and professional guidance to help them overcome obstacles and achieve optimal academic performance.

## Certifications for a graduate of the Computer Science Department at Shatt al-Arab University:

1. An individual who has completed their academic studies and obtained a bachelor's degree in computer science, armed with in-depth and comprehensive knowledge in their field of specialization.

2. Possesses skills in software analysis and design, data management, and artificial intelligence system development, qualifying them to work in the fields of programming, information security, artificial intelligence, and big data analysis.

3. Possesses the ability to apply computer science concepts and techniques in various sectors, including information technology, health systems, education, and digital industries, enabling them to contribute to technological development and innovation in society.

4. Qualified to work in technology companies, government agencies, and research institutions, in addition to the possibility of completing postgraduate studies in advanced computer science specializations.

## Graduate Specifications and Certificate:

| Graduate's Field of Work | Certificate Description | Department | College | University |
|---|---|---|---|---|
| Higher education departments or institutions - Information technology management in government departments - Cybersecurity and data protection - Systems development and maintenance - Data analysis and statistics to support decision-making - Database and network management in official institutions - Technical project management and digital transformation in government departments - Website design and development and e-government services - Internet of Things applications in smart infrastructure….. | Bachelor of Computer Science | Computer Science | the sciences | Shatt al-Arab National |

## Number of undergraduate students for the years 2022 to 2025:

**Table (1) Number of undergraduate students for the year 2022-2023**

| Males | Females | Number | Stage |
|---|---|---|---|
| 107 | 36 | 143 | First |
| 84 | 34 | 118 | Second |
| 88 | 33 | 121 | Third |
| 64 | 35 | 99 | Fourth |

**Table (2) Number of undergraduate students for the year 2023-2024**

| Males | Females | Number | Stage |
|---|---|---|---|
| 139 | 60 | 199 | First |
| 108 | 34 | 142 | Second |
| 79 | 29 | 108 | Third |
| 85 | 34 | 119 | Fourth |

**Table (3) Number of undergraduate students for the year 2024-2025**

| Males | females | number | stage |
|---|---|---|---|
| 121 | 80 | 201 | First |
| 128 | 67 | 195 | Second |
| 98 | 34 | 132 | Third |
| 81 | 31 | 112 | Fourth |

## Academic Activities - Department of Computer Science - Shatt al-Arab University

The Department of Computer Science at Shatt al-Arab University College is a distinguished academic center that seeks to prepare technical cadres capable of keeping pace with rapid developments in the field of information technology. Driven by its vision of achieving academic and research excellence, the department is keen to organize a variety of academic activities aimed at enhancing students' skills, supporting scientific research, and providing an interactive learning environment that integrates theoretical and applied aspects.

These activities include various fields such as scientific research, practical training, conferences and seminars, programming competitions, and collaborations with academic and industrial institutions. This contributes to the development of a generation of programmers and researchers capable of innovating and providing technical solutions to societal and industrial problems. The following are some of the academic activities organized by the department to support students and faculty members and enhance the educational and research process:

1. A scientific symposium titled "Advanced Electronic Navigation" was presented by Master's Lieutenant Colonel Ali Abdul Karim Ashour, a professor at the Arabian Gulf Academy for Maritime Studies, under the supervision of Dr. Maha Al-Ghalbi, Assistant Dean of Science. This symposium was part of the Database Systems course for second-year students in the Computer Science Department.

2. A scientific trip to the Science Camp (Robot Factory). Participants viewed the various devices and robots that had been manufactured, and attended lectures given by Professor Nouris Aref, under the supervision of Ms. Fatima Nizar and Professor Muhammad Asaad.

3. A training workshop, in cooperation with Asiacell, on the Iraqi labor market in the fields of communications, digital transformation, marketing services, and customer support, under the supervision of Professor Muntadhar Muslim Ashour.

4. Shatt al-Arab University participated in the Iraqi Universities Competition and achieved first place among southern universities.

In addition, to many other activities archived in the database of the Faculty of Science/Department of Computer Science.

## Performance indicators for the fifth standard: Students

| | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Student admission | 5.1.1 | The existence of a well-thought-out and documented admission plan that includes the requirements to be met by students and the procedures followed. | ✓ | ✓ | Totally | Attach 14 |
| | | 5.1.2 | The actual number of Admitted Students should correspond to the planned number of students to be admitted based on the available qualified human resources (faculty and staff) and sufficient material resources (space, equipment, capacity of infrastructures). | ✓ | ✓ | Totally | Attach 15 |
| | | 5.1.3 | Taking into account the requirements of the ministry, which affect admission and act upon. | ✓ | ✓ | Totally | Attach 14 |
| 2 | Student Transition | 5.2.1 | The requirements and procedures for accepting transferred students must be ready and well documented in addition to the requirements imposed by the ministry, which affect the admission of transferred students. | ✓ | ✓ | Totally | Attach 19 |
| | | 5.2.2 | The presence of a resume of students transferred over the past five years. | ✓ | ✓ | Totally | Attach 19 |
| | | | Determine the clearing instructions for the transfer of students to ensure | ✓ | ✓ | Totally | Attach 19 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5.2.3 | compliance with the content of previous and recent educational programs and the mechanism for announcing and documenting requirements and instructions. | | | | |
| 3 | Student performance and progress | 5.3.1 | Documenting the procedures for evaluating the student's performance and monitoring his progress. | ✓ | ✓ | **Totally** | **Attach 4** |
| | | 5.3.2 | The existence of a documented mechanism to ensure that students meet the basic requirements and determine the procedures to be followed by the educational program when one of the previous requirements is not met. | ✓ | ✓ | **Totally** | **Attach 21+25** |
| | | 5.3.3 | The existence of transparent, fair and consistent direct and indirect methods in the evaluation and monitoring procedures. | ✓ | ✓ | **Totally** | **Attach 20** |
| 4 | Student activities and extracurricular activities | 5.4.1 | The existence of clear and announced procedures and guidelines for students related to the planning of compulsory and optional curricula. | ✓ | ✓ | **Totally** | **Attach 6** |
| | | 5.4.2 | Students should be offered counseling in three main areas; psychological, academic, and professional. | ✓ | ✓ | **Totally** | **Attach 22** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5.4.3 | Participation in student representative entities, joint social and environmental, sports activities, and other campus activities provided to students for the development of moral awareness and character building apart from academic development. | ✓ | ✓ | **Totally** | **Attach 23** |
| 5 | Developing students ' skills and graduation requirements | 5.5.1 | Training and laboratories for students to ensure obtaining the highest degrees of skill and professionalism needed by the graduate in the labor market | ✓ | ✓ | **Totally** | **Attach 24** |
| | | 5.5.2 | Graduation requirements must be documented and available to all students. | ✓ | ✓ | **Totally** | **Attach 21** |
| | | 5.5.3 | There should be a clear policy for the educational program regarding the available alternative materials. | ✓ | ✓ | **Totally** | **Attach 25** |
| | | 5.5.4 | Activating mechanisms to communicate with graduates and support them with the presence of an administrative formation to follow up with graduates and maintain communication with them. | ✓ | ✓ | **Totally** | **Attach 26** |

## Standard Six: Academics and Faculty

### Administrative Organization:

Administrative work in the department is distributed according to a clear organizational structure, with clearly defined responsibilities to ensure the efficient implementation of the Computer Science Department's program. Program implementation is based on the principles and controls established by the Department Council, with faculty members being given the opportunity to participate in decision-making through their membership in various committees within the department. These committees submit recommendations to the department's administration, which are taken into account when making strategic decisions related to the academic and administrative process.

### Faculty Descriptions in the Computer Science Department:

The Computer Science Department includes 19 faculty members who have obtained their degrees and academic titles from prestigious Iraqi and foreign universities. The faculty is distributed according to their academic specializations, contributing to enhancing the quality of education and scientific research within the department. The following table details the distribution of faculty members according to their academic qualifications.

**Names of the teaching staff in the Computer Science Department for the academic year 2024-2025**

| Name | Academic Title | General Specialization | Subspecialty | Certificate |
|---|---|---|---|---|
| Prof. Dr. Basem Sahar Yassin | Professor | Computer Science | cipher security | PhD |
| Asst. Prof. Dr. Haider Nasser Khuraibat | Assistant Professor | Computer Science | Artificial intelligence | PhD |
| Lec.Dr. Ali Kazim Matar | lecturer | Computer Science | Computer Security | PhD |
| Lec.Dr. Maha Qasim Muhammad | lecturer | Computer Science | Medical visualization | PhD |
| Ass.lec.Jawad Kazim Hussein | Assistant Lecturer | Computer Science | networks | Master's |
| Ass.lecFatima Nizar Hamza | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecAli Mahmoud Shaker | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecKarar Ali Abdullah | Assistant Lecturer | Computer Science | Information technology | Master's |
| Ass.lecHaider Shaker Hashim | Assistant Lecturer | Computer Science | computer vision | Master's |
| Ass.lecMohammed Asaad Hussein | Assistant Lecturer | Computer Science | cipher security | Master's |

| | | | | |
|---|---|---|---|---|
| **Ass.lecFarah Alaa Mohammed** | **Assistant Lecturer** | **Computer Science** | **Information technology** | Master's |
| **Ass.lecMontazer Muslim Ashour** | **Assistant Lecturer** | **Computer Science** | **Computer Information Systems** | Master's |
| **Ass.lecAseel Jassim Mohammed** | **Assistant Lecturer** | **Computer Science** | **Wireless Sensor Security Network** | Master's |
| **Ass.lecHiam Abbas Qasim** | **Assistant Lecturer** | **Computer Science** | **Computer Information Systems** | Master's |
| **Ass.lecMustafa Sobhi Salman** | **Assistant Lecturer** | **Computer Science** | **Information technology** | Master's |
| **Ass.lecLina Gamal Mohsen** | **Assistant Lecturer** | **Computer Science** | **cipher security** | Master's |
| **Ass.lecMustafa Hamed Hashem** | **Assistant Lecturer** | **Computer Science** | **Information technology** | Master's |
| **Ass.lecHussein Mazen Mohammed** | **Assistant Lecturer** | **Computer Science** | **Information technology** | Master's |
| **Ass.lecHajar Saheb Shanawa** | **Assistant Lecturer** | **Computer Science** | **Electrical Engineerin** | Master's |

## Administrative and Support Staff:

### List of Bachelor's Degrees for the 2024-2025 Academic Year

| Name | Degree | Job Description |
|---|---|---|
| **Amani Nizar Abbas** | Bachelor of Arts in Arabic Language | Secretary to the Head of Department |
| **Ali Raad** | Bachelor of Computer Science | Research Assistant |
| **Sari Sarkis** | Bachelor of Computer Science | Research Assistant |
| **Ibrahim Jaafar** | Bachelor of Computer Science | Research Assistant |
| **Mohamed Salah** | Bachelor of Computer Science | Research Assistant |
| **Khalaf Mohammed Khalaf** | Bachelor of Computer Science | Research Assistant |
| **Safa Asaad Mahdi** | Bachelor of Communications Engineering | Job Description |

### List of staff names for the academic year 2024-2025

| Name | Job Title |
|---|---|
| **Amjad Saadoun Ghanem** | **Service Officer** |

Finally, this chapter covers the areas of axis six of the Ministry of Higher Education's National Programmatic Accreditation Standards, which addresses the selection, appointment, development, and evaluation of faculty members. Educational institutions face numerous challenges in selecting qualified and highly competent teaching staff. Attention to faculty selection is a crucial element in the success and effectiveness of the teaching and learning process. The preparation and qualifications of faculty members must be sufficient to achieve the educational institution's mission and objectives. This axis consists of several essential elements-

related to the competence and effectiveness of faculty members and their role in achieving academic quality standards.

1. **Faculty Selection Mechanism:**
    - This element includes the procedures adopted for selecting faculty members, such as academic qualifications, previous experience, professional competencies, and tests or interviews. This mechanism is designed to ensure the selection of individuals with the skills and knowledge necessary to deliver high-quality education.
2. **Faculty Competence:**
    - This element relates to the level of academic and professional performance of faculty members. This includes effective teaching, scientific research, student advising and supervision, and participation in academic activities. Competence can be measured through student evaluations, peer feedback, or research and publication results.
3. **Faculty Learning Environment:**
    - This refers to the conditions and facilities provided by the university or college for faculty members, such as equipped classrooms, library resources, educational technology support, and spaces designated for research. A good learning environment helps faculty members perform their duties efficiently and develop their skills.
4. **Faculty Support Services:**
    - This element includes the services provided by the institution to support faculty members in improving their academic and professional performance. These services include ongoing training, research opportunities, professional consultations, and technical systems that facilitate their work. This element enhances the work environment and increases faculty satisfaction

## Performance Indicators for the Sixth Standard: Academics and Teachers.

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Faculty qualifications | 6.1.1 | The presence of a scientific and administrative structure of faculty members and their specialties based on the vision and objectives of the educational program | ✓ | ✓ | **Totally** | **Attach 27** |
| | | 6.1.2 | The presence of special databases of qualifications and experience of faculty members with their CVs for each of them. | ✓ | ✓ | **Totally** | **Attach 28** |
| | | 6.1.3 | The scientific specialization of the teaching staff must be appropriate for the courses they are studying. | ✓ | ✓ | **Totally** | **Attach 7+27+28** |
| | | 6.1.4 | Encourage the spirit of participation to work in a team to achieve the educational program | ✓ | ✓ | **Totally** | **Attach 13+20** |
| 2 | Workload | 6.2.1 | The time allocated for the educational program in terms of workload expectations and requirements should be well documented. | ✓ | ✓ | **Totally** | **Attach 6** |
| | | 6.2.2 | The administrative and teaching duties of the teaching staff should be appropriately balanced to allow adequate participation in scientific research, applied, and fieldwork. | ✓ | ✓ | **Totally** | **Attach 7** |
| | | 6.3.1 | The adequacy of the number of teaching staff should be documented. | ✓ | ✓ | **Totally** | **Attach 7** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | Faculty size | 6.3.2 | Determining the quality of faculty interactions with students, providing student counseling, counseling, university service activities, and professional development. | ✓ | ✓ | **Totally** | **Attach 22+12+16** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4 | Faculty development | 6.4.1 | Professional development activities including scientific research and contribution to postgraduate studies (if any) of each faculty member should be well documented, especially in modern teaching and learning methods, effective interactive communication, leadership and management skills, and others. | ✓ | ✓ | **Totally** | **Attach 29** |
| 5 | Faculty and responsibility | 6.5.1 | Documenting the role played by faculty members in curriculum creation, modification, and evaluation. | ✓ | ✓ | **Totally** | **Attach 30** |
| | | 6.5.2 | Documenting its role in defining and reviewing the educational objectives of the program. | ✓ | ✓ | **Totally** | **Attach 3** |
| | | 6.5.3 | Documenting its role in achieving learning outcomes in addition to the roles of officials in the college administration. | ✓ | ✓ | **Totally** | **Attach 18** |

# Standard 7: Administrative Support

## Performance indicators for the seventh standard: Administrative support

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Leadership, administrative services, and faculty support | 7.1.1 | The presence of a sufficient number of teaching staff with various scientific titles and specialties that work to implement the program with high efficiency | ✓ | ✓ | Totally | Attach 27+28 |
| | | 7.1.2 | The existence of controls to attract competencies and teachers | ✓ | ✓ | Totally | Attach 42 |
| | | 7.1.3 | Development of teaching staff | ✓ | ✓ | Totally | Attach 18 |
| | | 7.1.4 | Support teachers to participate in scientific activities | ✓ | ✓ | Totally | Attach 31 |
| 2 | Technical and administrative staff support | 7.2.1 | Determine the size of the staff in each division and transfer the surplus to divisions or even to other faculties. | ✓ | ✓ | Partly | |
| | | 7.2.2 | The qualifications of managers should be consistent with their duties | ✓ | ✓ | Totally | Attach 27+32 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 7.2.3 | The presence of a sufficient number of staff and administrators is commensurate with the preparation of students and teachers to provide services. | ✓ | ✓ | **Totally** | **Attach 15+27** |
| | | 7.2.4 | Development of technical and administrative staff. | ✓ | ✓ | **Totally** | **Attach 18** |
| | | 7.2.5 | Automation of administrative work | ✓ | ✓ | **Totally** | **Attach 5** |

# Standard Eight: Financial Support

This chapter covers areas related to Standard Eight of the Ministry of Higher Education's National Program Accreditation Standards, which includes financial planning, adequacy of financial resources, financial management, financial investment, and development. It also includes aspects related to teaching facilities, technical equipment, and financial resource planning.

The importance of this standard stems from its role in shaping a supportive environment for all academic activities undertaken by the Computer Science Department at Ahlia University, whether in the areas of teaching and learning, scientific research, or community service. This standard is also essential for supporting the human resources within the department, including students, faculty members, researchers, administrators, and technical support and service staff.

Therefore, the department must develop effective plans to ensure the quality and sustainability of this environment, monitor and update them continuously, and implement the necessary measures to ensure the achievement of the department's and universities strategic objectives. This standard includes the following elements: The elements are then detailed.

1. Element One: Financial Resources
2. Element Two: Material Resources

The main objective of this criterion is:

- Financial resource planning and its realism and consistency with the department's mission and academic and research objectives.
- The availability and transparency of financial records, and their impact on the level of integrity and fairness in administrative and financial decision-making.
- The teaching facilities provided and their impact on the quality of the educational process and the achievement of the department's objectives
- The availability of modern technical equipment and materials to support and improve the teaching process and enhance academic performance.
- The level of planning to ensure the availability of the necessary material and technical resources, and the extent to which they achieve the planned objectives for the department's development**.**

## Performance indicators for the eighth standard:

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Funding resources | 8.1.1 | Having a financial budget to meet the requirements of implementing the academic program | ✓ | ✓ | Totally | Attach 41 |
| | | 8.1.2 | The existence of a clear and documented mechanism to develop and maximize sufficient financial resources for the maintenance, modernization and operation of infrastructure, facilities, and laboratory equipment needed by the program to provide a scientific environment through which to achieve the desired goals for graduates. | ✓ | ✓ | Totally | Attach 41 |
| 2 | Program budget | 8.2.1 | Allocate adequate financial support by the scientific institution to facilitate teaching and learning activities and the appropriate environment in terms of enabling students to obtain high-quality in learning outcomes well، | ✓ | ✓ | Totally | Attach 33+34+35+39 +41 |
| | | 8.2.2 | Marketing the research outputs of graduate students through communication with other institutions adds additional financial sources supporting | x | x | | No postgraduate studies |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | scientific research and enhancing the ability of graduates and their expertise. | | | | |
| | | 8.2.3 | Provide adequate financial resources for the maintenance, modernization, and | ✓ | ✓ | **Totally** | **Attach 41** |

# Standard Nine: Facilities and Services

## Academic Buildings and Laboratories:

The Computer Science Department includes a number of offices and annexes, in addition to classrooms and specialized laboratories. The department has an integrated infrastructure that provides a suitable learning environment that combines theoretical and practical aspects, as follows:

## Classrooms:

The department includes (4) classrooms equipped with various necessities and illustrative tools necessary for delivering lectures and holding academic discussions, providing an interactive learning environment that contributes to enhancing students' understanding and comprehension.

## Laboratory Facilities:

**The laboratories are shown in the following table:**

| Lab Name | Lab space | Number of students | Number of devices | Number of working hours | Laboratory readiness |
|---|---|---|---|---|---|
| **Lab 1** | 38.88 m | 30 | 30 | 9 | **Ready** |
| **Lab 2** | 38.88 m | 38 | 38 | 9 | **Ready** |
| **Lab 3** | 38.88 m | 36 | 36 | 9 | **Ready** |
| **Lab 4** | 38.88 m | 36 | 36 | 9 | **Ready** |

## Library and Reference:

The department has an extensive library containing a diverse collection of specialized scientific journals in various fields, published by local and international publishing houses, in addition to a collection of modern books and CDs containing the latest research. A dedicated book section is also available, providing students and researchers with access to rich knowledge resources.

In addition, the department has a fully equipped reading room, including air conditioning and other amenities, to ensure a suitable environment for research and study. The department's plans also include developing digital archiving systems for books and resources, which will contribute to improving information management and accessibility.

## Performance Indicators for the Ninth Standard: Facilities and Services

| No. | Element | No. | Indicator | Existing | Effective | Degree of conformity<br>Wholly, partly, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| 1 | Facilities and equipment | 9.1.1 | Provides administrative offices, teachers, employees, technicians, and others, and their necessary equipment. | ✓ | ✓ | Totally | Attach. 33 |
| | | 9.1.2 | The classrooms are equipped with modern supplies. | ✓ | ✓ | Totally | Attach. 34 |
| | | 9.1.3 | Laboratories and workshops, their equipment, devices, tools, and supplies are provided that are necessary enough to achieve adequate learning results from a professional point of view and build good experiences in scientific specialization, provided that a special appendix is attached indicating the basic equipment of the basic laboratories. | ✓ | ✓ | Totally | Attach. 35 |
| | | 9.1.4 | Smart halls are provided with their integrated physical and human requirements, which ensure the holding of lectures and video workshops in conjunction with the corresponding departments in international universities. | ✓ | ✓ | Totally | Attach.34 |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 9.1.5 | supporting facilities and necessary equipment, such as student housing, Sports, | ✓ | ✓ | Partly | |
| 2 | Computer equipment | 9.2.1 | The adequacy of the computer equipment used by the students of the program in various locations such as student dormitories, student centers, libraries and even outside the campus (terminals, servers, warehouses, networks, programs, etc.) other than those described in the paragraph of the program laboratories. | ✓ | ✓ | Partly | |
| | | 9.2.2 | Clarify the mechanism of use by students of the educational program and the hours of its availability. And to indicate the extent of its adequacy to support the scientific and professional activities of students and teachers in the educational program, provided that this is well documented and announced to the beneficiaries | ✓ | ✓ | Totally | Attach. 36 |
| 3 | Student orientation and safety procedures | 9.3.1 | The announcement of the educational program is a mechanism to provide appropriate guidance to students regarding the use of tools, devices, equipment, and computers in laboratories and in others. | ✓ | ✓ | Totally | Attach. 36 |
| | | 9.3.2 | The program must ensure the safety of the facilities and equipment used for the intended purpose | ✓ | ✓ | Totally | Attach. 37 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | in the program, provided that this is well documented and declared to the beneficiaries. | | | | |
| 4 | Maintenance and modernization of facilities | 9.4.1 | The adequacy of the policies and procedures followed for the maintenance and modernization of tools, devices, equipment, and computers in the scientific department used by students of the program and teaching staff is an important matter. | ✓ | ✓ | Totally | Attach. 38 |
| 5 | Library services | 9.5.1 | | ✓ | ✓ | Totally | Attach. 39 |
| | | 9.5.2 | The adequacy of the library services (or libraries) provided to the program's students and teachers, including the extent to which all the specialized needs of the program are covered, and the facilities provided by the library to meet the requests of teachers and students. | x | x | Not applied | |

# 5. Results and Analysis Based on SWOT, Improvement Plan, and Achievements

## SWOT Analysis System

SWOT Analysis, also known as the Quadrant Analysis Tool, is a matrix used to identify strengths and weaknesses, as well as opportunities and threats that may face a particular institution or project. This analysis is not limited to education but extends to various fields such as marketing, development, and business strategies.

The emergence of this analysis goes back to business management experts, as it was developed at Stanford University under the supervision of Albert Humphrey between 1960 and 1970. The main goal was to identify the reasons behind the failure of joint planning, the resulting economic problems, and to find appropriate solutions to address them.

## Importance of SWOT Analysis

SWOT analysis undertakes multiple tasks aimed at evaluating and improving the project by:

- Highlighting strengths and exploiting them to achieve the project's objectives.
- Identifying weaknesses and working to correct and benefit from them.
- Exploring good opportunities and leveraging them for project development.
- Studying potential threats to the project and working to avoid them.
- Developing alternative and complementary plans and arranging emergency strategies to ensure project continuity.
- Developing innovative and distinguished marketing strategies to enhance the project's competitiveness.
- Preparing an integrated plan for risk management and dealing with potential challenges.
- Measuring project performance compared to competitors in the market and analyzing its superiority.
- Identifying appropriate tools and resources that contribute to developing and improving project performance.

SWOT is used in the strategic planning process as it is an important tool for exploring success opportunities and identifying threats.

## Elements of SWOT Analysis

SWOT analysis is an acronym representing four English words that define the elements on which the analysis is based, related to the internal and external environment of the project:

- **Strengths (S)**
- **Weaknesses (W)**
- **Opportunities (O)**
- **Threats (T)**

## Results Analysis Using SWOT

The results of the self-assessment study showed the extent of achieving the standards as follows:

| Criterion No. | Criterion Name | Compliance Level |
|---|---|---|
| | | None / Partial / Full |
| 1 | Educational Program Objectives | Full |
| 2 | Educational Program Outcomes | Partial |
| 3 | Curriculum | Full |
| 4 | Continuous Quality Improvement | Full |
| 5 | Students | Full |
| 6 | Academics and Teaching Staff | Full |
| 7 | Administrative Support | Partial |
| 8 | Financial Support | Partial |
| 9 | Facilities and Services | Partial |

## Improvement Plan

| Criterions | Strengths | Weaknesses | Improvement Plan | Duration |
|---|---|---|---|---|
| **Educational Program Objectives** | • The department has a clear and declared vision and mission aligned with the university's goals.<br>• Objectives are written and announced to students and faculty and are updated periodically.<br>• Objectives align with labour market requirements and modern computer science trends.<br>• Stakeholders are involved in reviewing and improving objectives. | • No weaknesses points | | |
| **Educational Program** | • Clear learning outcomes covering cognitive, skill- | • Weak application of some | • Organize workshops for students to | |

| | | | | |
|---|---|---|---|---|
| **Outcomes** | based, and value-related aspects.<br>• Good linkage between program outcomes and educational objectives.<br>• Documentation of performance indicators associated with learning outcomes. | learning outcomes related to effective communication skills and professional writing.<br>• Limited documentation of the impact of learning outcomes in the workplace and labour market. | develop writing, presentation, and effective communication skills.<br>• Develop an alumni tracking system to collect data on the impact of learning outcomes on professional performance.<br>• Involve employers in evaluating the effectiveness of outcomes. | Attach<br>43<br>44 |
| **Curriculum** | • Availability of a clear and updated study plan covering various computer science fields.<br>• Existence of several educational systems (Bologna, annual, courses), indicating continuous review and development of the academic program.<br>• Alignment of curricula with modern trends such as AI and data analytics.<br>• Documentation of each course's content with specific learning outcomes. | • No weaknesses points | | |
| **Continuous Quality Improvement** | • An effective quality management system exists within the department.<br>• Regular evaluations of program performance and | • No weaknesses points | | |

| | | | | |
|---|---|---|---|---|
| | learning outcomes are conducted.<br>• Records document all improvement and review processes. | | | |
| **Students** | • Clear admission and registration policies according to the Ministry of Higher Education instructions.<br>• Provision of academic advising for students.<br>• Presence of scientific, cultural, and sports activities supporting students' personal development. | • No weaknesses points | | |
| **Academics and Teaching Staff** | • A specialized and qualified teaching staff with high-level degrees from reputable universities.<br>• Documentation of faculty qualifications and CVs.<br>• Involvement of faculty members in academic decision-making. | • No weaknesses points | | |
| **Administrative Support** | • Existence of a clear administrative structure with defined responsibilities.<br>• Good cooperation between the department and administrative units. | • Lack of continuous training for some administrative staff on quality programs.<br>• Some administrative procedures need automation to facilitate | • Organize training courses for administrative staff on quality management and automation systems.<br>• Develop a unified electronic system for managing | Attach<br>45 |

| | | | | |
|---|---|---|---|---|
| | | work and reduce errors. | administrative procedures. | |
| **Financial Support** | • Availability of basic funding for conducting academic activities.<br>• Financial support allocated for maintenance and equipping laboratories. | • No Weakness Points | | |
| **Facilities and Services** | • Availability of well-equipped computer laboratories.<br>• Existence of a digital library supporting the educational process. | • Need to upgrade some laboratory equipment to keep pace with the latest technologies.<br>• Limited spaces dedicated to some student activities. | • Develop a plan to renew laboratory equipment by no less than 20% annually.<br>• Create flexible multi-purpose halls for student activities. | Attach<br>46<br>47<br>48 |

**All the points mentioned in the improvement plan will indeed be implemented according to the development plan of the Computer Science Department at Al-Shatt Al-Arab University, by a maximum deadline of 1/9/2025.**

# 6. Conformity and Readiness Report

## 1. Conformity Report

## ABET Program Accreditation Compliance Report

Department of Computer Science / College of Science / Shatt Al-Arab University

Academic Year 2024-2025

Based on the self-assessment report from the Department of Computer Science, and after reviewing the ABET program accreditation criteria, the following compliance report has been prepared to clarify the extent to which the department meets the nine ABET criteria.

## Criterion 1: Program Educational Objectives

- A clear vision and mission of the department are declared and published.

- The program's educational objectives are defined, announced, and reviewed periodically in coordination with stakeholders.

- The objectives are closely linked to the university's mission and labour market requirements.

- The alignment between the program objectives, the College of Science mission, and the university mission has been documented.

**Compliance Level: Fully Compliant**

## Criterion 2: Student Outcomes

- The program learning outcomes are clearly defined and published.

- The outcomes are aligned with the academic program objectives and ABET standards, covering knowledge, skills, and behavioural aspects.

- There is documented evidence of continuous assessment of learning outcomes through feedback from students, faculty members, graduates, and employers.

- Some outcomes still require reinforcement of field applications related to community service (e.g., criteria 2.1.2, 2.1.4, and 2.1.5 were not fully implemented as indicated in the self-assessment report).

**Compliance Level: Fully Compliant after addressing all unimplemented points in the improvement plan attached to this report, as detailed in the readiness report.**

## Criterion 3: Curriculum

- The study plan is detailed and updated, aligned with ABET requirements, and includes specialized topics such as Artificial Intelligence, Data Analysis, Cybersecurity, and others.

- Three study systems are available (semester, annual, Bologna), enhancing the program's flexibility.

- The alignment between course content and targeted learning outcomes has been documented.

- The curriculum takes into account labour market requirements and keeps pace with scientific and technological advancements.

**Compliance Level: Fully Compliant**

## Criterion 4: Continuous Improvement

- A documented continuous improvement system includes:

  * Periodic student surveys.

  * Faculty evaluations.

  * Regular review of academic programs.

- A mechanism exists to address weaknesses identified in evaluations and convert them into improvement plans.

**Compliance Level: Fully Compliant**

## Criterion 5: Students

- A clear policy exists for admitting new and transferred students in accordance with ministry regulations.

- Graduation requirements are documented and announced.

- The department provides diverse academic and extracurricular activities to support students academically and personally.

- Clear mechanisms exist for academic and career advising.

- Accurate data on student numbers are available, disaggregated by stage, gender, and study system.

**Compliance Level: Fully Compliant**

## Criterion 6: Faculty

- The department has a qualified teaching staff covering all program specializations.

- Efforts are made to enhance faculty skills through training workshops and professional development courses.

- Faculty performance evaluations are documented regularly and considered in development plans.

**Compliance Level: Fully Compliant**

## Criterion 7: Facilities and Institutional Support

- The administrative structure is clear, with well-defined responsibilities.

- Administrative support for the teaching and research process is available, but no detailed evidence exists regarding the system for evaluating administrative support effectiveness.

- Organizational committees contribute to efficient program management.

**Compliance Level: Fully Compliant after addressing all unimplemented points in the improvement plan attached to this report, as detailed in the readiness report.**

## Criterion 8: Financial Resources

- The program receives sufficient financial support to cover educational operations.

- Financial allocations exist to support academic activities and laboratories.

**Compliance Level: Fully Compliant**

## Criterion 9: Facilities

- Laboratories are equipped with modern devices and diverse equipment.

- Laboratories are regularly updated to meet program requirements, but no student satisfaction surveys exist regarding the effectiveness of facilities and services.

- Suitable classrooms and modern teaching aids are available.

- A university library contains up-to-date resources, though no electronic access is available.

**Compliance Level: Fully Compliant after addressing all unimplemented points in the improvement plan attached to this report, as detailed in the readiness report.**

## General Evaluation of the Department According to ABET Standards:

Based on the self-assessment report and the attached evidence, it is evident that the Department of Computer Science at Al-Shatt Al-Arab University meets a high percentage of ABET accreditation requirements, with some notes requiring attention, particularly regarding outcomes related to community service and international research activity. These notes have been incorporated into the improvement plan, which is to be implemented no later than 1/9/2025.

Overall Compliance Level: Highly Compliant after implementing the attached improvement plan to ensure full compliance with all ABET requirements.

# 2. Readiness Report

| | Standard | | element | existing | active | degree of conformity<br>completely, partially, not applied | Evidence and documents |
|---|---|---|---|---|---|---|---|
| **1** | Educational program objectives | 1 | Strategic Planning | ✔ | ✔ | **completely** | Attach 1 |
| | | 2 | Aligning the educational program objectives with the educational institution's mission | ✔ | ✔ | **completely** | Attach 2 |
| | | 3 | The educational program objectives review process | ✔ | ✔ | **completely** | Attach 1+3 |
| **2** | Educational program outcomes and their evaluation | 1 | Accredited Learning Outcomes | ✔ | ✔ | **completely** | Attach 4+5+6+16+17+18+21+25 |
| | | 2 | Linking Learning Outcomes to Educational Program Objectives | ✔ | ✔ | **completely** | Attach 6+7 |
| **3** | Curricula | 1 | Structure and Content of the Educational Program | ✔ | ✔ | **completely** | Attach 6+8+25 |
| | | 2 | Linking the Curricula to Learning Outcomes | ✔ | ✔ | **completely** | Attach 1+6 |
| **4** | continuous improvement | 1 | Achieving Teaching and Learning Outcomes | ✔ | ✔ | **completely** | Attach 4+7+9+10 |
| | | 2 | Measures for Continuous Improvement | ✔ | ✔ | **completely** | Attach 10+11+12+13 |
| **5** | students | 1 | Student Admission | ✔ | ✔ | **completely** | Attach 14+15 |
| | | 2 | Student Transfer | ✔ | ✔ | **completely** | Attach 19 |
| | | 3 | Student Performance and Progress | ✔ | ✔ | **completely** | Attach 4+20+21+25 |
| | | 4 | Student Activities and Extracurricular Activities | ✔ | ✔ | **completely** | Attach 6+22+23 |
| | | 5 | Student Skills Development and Graduation Requirements | ✔ | ✔ | **completely** | Attach 21+24+25+26 |
| **6** | Academics and teachers | 1 | Faculty Qualifications | ✔ | ✔ | **completely** | Attach 7+13+20+27+28 |
| | | 2 | Workload | ✔ | ✔ | **completely** | Attach 6+7 |
| | | 3 | Faculty Size | ✔ | ✔ | **completely** | Attach 7+12+16+22 |
| | | 4 | Faculty Development | ✔ | ✔ | **completely** | Attach 29 |
| | | 5 | Faculty and Responsibilities | ✔ | ✔ | **completely** | Attach 3+18+30 |
| **7** | Administrative support | 1 | Leadership, Administrative Services, and Faculty Support | ✔ | ✔ | **completely** | Attach 18+27+28+31=42+43 |
| | | 2 | Technical and Administrative Staff Support | ✔ | ✔ | **completely** | Attach 5+15+18+27+32+43 |
| **8** | Financial support | 1 | Funding Resources | ✔ | ✔ | **completely** | Attach 41 |
| | | 2 | Program Budget | ✔ | ✔ | **completely** | Attach 41 |
| **9** | Facilities and services | 1 | Facilities and Equipment | ✔ | ✔ | **completely** | Attach 33+34+35 |
| | | 2 | Computer Equipment | ✔ | ✔ | **completely** | Attach 36 |
| | | 3 | Student Orientation and Safety Procedures | ✔ | ✔ | **completely** | Attach 36 |
| | | 4 | Facility Maintenance and Upgrades | ✔ | ✔ | **completely** | Attach 38 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 5 | Library Services | ✔ | ✔ | **completely** | Attach 39 |