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

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

Results Analysis Using SWOT

Criterions	Strengths	Weaknesses	Improvement Plan
Educational Program Objectives	• The department has a clear and declared vision and mission aligned with the university's goals. • Objectives are written and announced to students and faculty and are updated periodically. • Objectives align with labor market requirements and modern computer science trends. • Stakeholders are involved in reviewing and improving objectives.	• No weaknesses points	• Hold regular meetings with alumni and employers to collect feedback about program objectives. • Develop a document linking objectives with performance indicators to accurately measure achievement.
Educational Program Outcomes	• Clear learning outcomes covering cognitive, skill-based, and value-	• Weak application of some learning	• Organize workshops for students to develop writing,

	related aspects. • Good linkage between program outcomes and educational objectives. • Documentation of performance indicators associated with learning outcomes.	outcomes related to effective communication skills and professional writing. • Limited documentation of the impact of learning outcomes in the workplace and labor market.	presentation, and effective communication skills. • Develop an alumni tracking system to collect data on the impact of learning outcomes on professional performance. • Involve employers in evaluating the effectiveness of outcomes.
Curriculum	• Availability of a clear and updated study plan covering various computer science fields. • Existence of several educational systems (Bologna, annual, courses), indicating continuous review and development of the academic program. • Alignment of curricula with modern trends such as AI and data analytics. • Documentation of each course's content with specific learning outcomes.	• No weaknesses points	• Increase the number of practical and application hours in core courses. • Update courses to include emerging technologies such as cloud computing and big data science, which will be implemented next year with the Bologna system for the third stage.
Continuous Quality Improvement	• An effective quality management system exists within the department. • Regular evaluations of program performance and learning outcomes are conducted. • Records document	• No weaknesses points	• Develop data analysis tools from surveys to draw improvement decisions. • Organize semi-annual meetings to review improvement

	all improvement and review processes.		plans and assess their impact.
Students	• Clear admission and registration policies according to the Ministry of Higher Education instructions. • Provision of academic advising for students. • Presence of scientific, cultural, and sports activities supporting students' personal development.	• No weaknesses points	• Establish an active alumni association to communicate with new students. • Develop training partnerships with IT companies to secure practical training opportunities.
Academics and Teaching Staff	• A specialized and qualified teaching staff with high-level degrees from reputable universities. • Documentation of faculty qualifications and CVs. • Involvement of faculty members in academic decision-making.	• No weaknesses points	• Recruit specialized teaching staff in modern fields such as data science and advanced cybersecurity. • Organize training workshops for faculty on modern teaching methods and interactive technologies.
Administrative Support	• Existence of a clear administrative structure with defined responsibilities. • Good cooperation between the department and administrative units.	• Lack of continuous training for some administrative staff on quality programs. • Some administrative procedures need automation to facilitate	• Organize training courses for administrative staff on quality management and automation systems. • Develop a unified electronic system for managing administrative

		work and reduce errors.	procedures.
Financial Support	• Availability of basic funding for conducting academic activities. • Financial support allocated for maintenance and equipping laboratories.	• Weak investment in research projects to generate additional funding sources.	• Seek grants and funding from external entities (local and international). • Collaborate with the private sector to secure additional resources for laboratory development.
Facilities and Services	• Availability of well-equipped computer laboratories. • Existence of a digital library supporting the educational process.	• Need to upgrade some laboratory equipment to keep pace with the latest technologies . • Limited spaces dedicated to some student activities.	• Develop a plan to renew laboratory equipment by no less than 20% annually. • Create flexible multi-purpose halls for student activities.

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 1/9/2026.