Faculty of Medical Biochemistry and Biotechnology

Quality Improvement Plan

2024-2025

September, 2024

The Quality Improvement Plan (QIP) for the Faculty of Medical Biochemistry and Biotechnology at UBT College for the 2024-2025 academic year aims to address areas of growth identified in the Annual Quality Report while introducing new initiatives to further enhance the academic programs, student outcomes, faculty performance, and research output. This plan outlines targeted actions, timelines, responsible actors, and performance metrics for the continuous improvement of the Faculty.

1. Curriculum Development and Learning Outcomes

Objective:

To continuously update and refine the curriculum to ensure it remains aligned with evolving industry needs, emerging technologies, and global trends in biochemistry and biotechnology.

Key Actions:

- **Revise Course Syllabi:** Continue the revision of all course syllabi to incorporate new technologies, interdisciplinary topics, and practical applications. This will ensure the curriculum meets global standards.
    - **Timeline:** By the end of Semester 1, 2024
    - **Responsible Actors:** Curriculum Committee, Program Coordinators
    - **Performance Metric:** 100% of syllabi revised and aligned with emerging trends (bioinformatics, digital tools in biotechnology).
- **Expand Digital Literacy in Biochemistry and Biotechnology:** Introduce modules on AI, machine learning in biotechnology, and digital tools for research and development.
    - **Timeline:** Semester 2, 2024
    - **Responsible Actors:** Faculty Members, IT Department
    - **Performance Metric:** 80% of students report enhanced digital literacy through post-module surveys.
- **Enhance Clinical and Laboratory Training:** Develop new clinical practice modules that incorporate advanced biotechnology tools such as gene editing, and bioinformatics tools.
    - **Timeline:** By the end of Semester 1, 2025
    - **Responsible Actors:** Clinical Training Coordinators, Faculty Members
    - **Performance Metric:** 95% of students meeting the practical competency requirements.

2. Monitoring Student Practice and Clinical Training

Objective:

To improve clinical and research practice through enhanced internship programs, mentorship, and upgraded facilities.

Key Actions:

- **Increase Internship Opportunities:** Expand research internships and clinical training placements with top-tier institutions in the biotechnology and pharmaceutical industries.
    - **Timeline:** By the end of Semester 2, 2024
    - **Responsible Actors:** Internship Coordinators, External Relations
    - **Performance Metric:** 30% increase in internships offered in leading biotech and pharmaceutical companies.
- **Enhance Mentorship Program:** Strengthen the mentorship program by pairing students with faculty members involved in cutting-edge research projects to provide more personalized guidance.

    - **Timeline:** By the end of Semester 1, 2024
    - **Responsible Actors:** Mentorship Program Coordinator, Faculty Members
    - **Performance Metric:** 100% of students paired with a mentor, with a 25% increase in student satisfaction.
- **Upgrade Laboratory Facilities:** Continue investment in lab facilities, including the addition of new equipment and bioinformatics tools for student use.
    - **Timeline:** Ongoing; completion by Semester 2, 2024
    - **Responsible Actors:** Lab Managers, Faculty Members, Administration
    - **Performance Metric:** Improved lab-to-student ratio by 20% and 100% availability of necessary lab tools.

3. Stakeholder Engagement and Feedback

Objective:

To ensure that the Faculty's programs meet the evolving needs of the healthcare and biotechnology industries through regular stakeholder engagement and feedback collection.

Key Actions:

- **Strengthen Employer Engagement:** Organize annual employer feedback sessions and workshops to understand current industry demands and adjust the curriculum accordingly.
    - **Timeline:** By Semester 2, 2024
    - **Responsible Actors:** External Relations, Program Coordinators
    - **Performance Metric:** At least 75% of employers report satisfaction with the curriculum and graduate preparedness.
- **Alumni Feedback Integration:** Develop a formal system for alumni to provide feedback on how the curriculum has influenced their careers and how it can be improved.
    - **Timeline:** By Semester 1, 2024
    - **Responsible Actors:** Alumni Relations, Faculty Members
    - **Performance Metric:** Alumni engagement rate of at least 40% in surveys and focus groups.
- **Employer Skillset Alignment:** Introduce soft skills training, including communication, teamwork, and leadership, in response to employer feedback regarding the need for enhanced interpersonal skills.
    - **Timeline:** By Semester 2, 2024
    - **Responsible Actors:** Program Coordinators, Faculty Members
    - **Performance Metric:** 90% of students report increased confidence in soft skills after completing the program.

4. Faculty Development and Research Output

Objective:

To support faculty development in teaching, research, and professional growth to increase teaching effectiveness and research productivity.

Key Actions:

- **Faculty Research Support:** Increase the number of research grants and collaborations with international institutions, focusing on cutting-edge topics such as gene therapy, personalized medicine, and biotechnology innovations.
    - **Timeline:** Ongoing; completion by Semester 1, 2025
    - **Responsible Actors:** Research Committee, Faculty Members

    - **Performance Metric:** 20% increase in research publications and grant acquisitions by faculty members.
- **Enhanced Faculty Development Programs:** Implement advanced workshops and training on reflective teaching, modern lab technologies, and digital tools to keep faculty updated with teaching methodologies.
    - **Timeline:** By Semester 1, 2024
    - **Responsible Actors:** Faculty Development Committee, Department Heads
    - **Performance Metric:** 100% of faculty members attending at least two professional development workshops annually.
- **Promote Faculty-Student Research Collaboration:** Foster an environment where students can actively participate in faculty-led research projects.
    - **Timeline:** By Semester 2, 2024
    - **Responsible Actors:** Research Coordinators, Faculty Members
    - **Performance Metric:** 30% of students involved in faculty-led research projects.

5. Student Satisfaction and Learning Environment

Objective:

To improve overall student satisfaction with academic programs and the learning environment, ensuring that students are well-prepared for careers in biochemistry, biotechnology, and healthcare.

Key Actions:

- **Enhance Digital Learning Resources:** Expand the availability of online learning platforms, interactive modules, and digital textbooks to support learning, particularly in advanced subjects like bioinformatics and biotechnology tools.
    - **Timeline:** By Semester 1, 2024
    - **Responsible Actors:** IT Department, Faculty Members
    - **Performance Metric:** 85% student satisfaction with digital learning tools and platforms.
- **Increase Student Feedback Mechanisms:** Implement more frequent, real-time feedback channels to ensure that concerns and issues are addressed promptly and that the student experience continuously improves.
    - **Timeline:** Ongoing; first survey by Semester 1, 2024
    - **Responsible Actors:** Student Affairs, Program Coordinators
    - **Performance Metric:** 80% of students report positive experiences with feedback mechanisms.
- **Promote Extracurricular Activities and Research Clubs:** Develop new student-led research clubs or extracurricular activities that will allow students to collaborate outside of the classroom and gain additional research experience.
    - **Timeline:** By Semester 2, 2024
    - **Responsible Actors:** Student Affairs, Faculty Advisors
    - **Performance Metric:** 40% increase in student participation in extracurricular research activities.