Faculty of Medical Biochemistry and Biotechnology

Quality Improvement Action Plan

2024-2025

September, 2024

Introduction

This plan incorporates action steps, key performance indicators, timelines, and responsible actors for each area of focus.

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.

Action	Timeline	Responsible Actors	Performance Metrics
Revise course syllabi to incorporate new technologies and practical applications.	By end of Semester 1, 2024	Curriculum Committee, Program Coordinators	100% of syllabi updated and aligned with global trends (CRISPR, AI, bioinformatics)
Introduce new modules on AI, digital tools in biotech, and bioinformatics.	Semester 2, 2024	Faculty Members, IT Department	80% of students report enhanced digital literacy.
Develop clinical practice modules for advanced biotech tools like gene editing.	End of Semester 1, 2025	Clinical Training Coordinators, Faculty	95% of students complete practical competencies with biotech tools.

Additional Explanation:

- Syllabi revisions will focus on adding topics related to cutting-edge technologies like AI, and digital tools (bioinformatics, AI-driven research tools).
- New digital literacy modules will ensure that students are prepared for the increasing role of technology in modern biochemistry and biotechnology practices.
- The introduction of advanced clinical modules aims to bridge the gap between theoretical knowledge and real-world applications.

2. Monitoring Student Practice and Clinical Training

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

Action	Timeline	Responsible Actors	Performance Metrics
Increase research internships and clinical placements in biotech and pharma industries.	By end of Semester 2, 2024	Internship Coordinators, External Relations	30% increase in internships in leading biotech companies.
Enhance mentorship programs for personalized guidance during research training.	By end of Semester 1, 2024	Mentorship Program Coordinator, Faculty	100% of students paired with a mentor, 25% increase in student satisfaction.
Upgrade laboratory resources and introduce new biotech equipment.	Ongoing, completion by Semester 2, 2024	Lab Managers, Administration	20% improvement in lab-to-student ratio; 100% availability of necessary lab equipment.

Additional Explanation:

- The Faculty will enhance research internships with leading institutions to provide students with industry-relevant experiences in the biotechnology field.
- A formal mentorship program will be implemented to provide more personalized and structured guidance for students.
- Lab facilities will be upgraded to provide students with access to state-of-the-art equipment, ensuring that they are prepared for modern biotech practices.

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.

Action	Timeline	Responsible Actors	Performance Metrics
Strengthen employer engagement through workshops and feedback.	By Semester 2, 2024	External Relations, Program Coordinators	75% of employers report satisfaction with graduate preparedness.
Introduce soft skills training in communication and teamwork.	Semester 2, 2024	Program Coordinators, Faculty	90% of students report increased confidence in soft skills after training.

Additional Explanation:

- Employers will be engaged through annual workshops and feedback sessions to better align the curriculum with industry needs, ensuring that students are prepared for current job market demands.
- Soft skills such as communication and teamwork will be integrated into the curriculum to meet industry expectations for well-rounded professionals.

4. Faculty Development and Research Output

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

Action	Timeline	Responsible Actors	Performance Metrics
Increase research collaborations with international institutions.	Ongoing; completion by Semester 1, 2025	Research Committee, Faculty Members	20% increase in research publications and grant acquisitions.
Organize professional development workshops on reflective teaching and digital tools.	By Semester 1, 2024	Faculty Development Committee, Department Heads	100% of faculty attending at least two professional development workshops annually.
Encourage faculty-student research collaborations.	By Semester 2, 2024	Research Coordinators, Faculty	30% of students involved in faculty-led research projects.

Additional Explanation:

- The Faculty will facilitate increased international research collaborations to elevate the quality of research output and global visibility.
- Faculty members will be encouraged to participate in professional development workshops to enhance their teaching and research skills, particularly in the use of digital tools in biochemistry and biotechnology.
- Research collaboration between faculty and students will be emphasized to foster a strong research culture within the Faculty.

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.

Action	Timeline	Responsible Actors	Performance Metrics
Expand digital learning resources to include interactive modules and digital textbooks.	By Semester 1, 2024	IT Department, Faculty Members	85% student satisfaction with digital learning tools.
Implement real-time student feedback mechanisms to improve learning experiences.	Ongoing; first survey by Semester 1, 2024	Student Affairs, Program Coordinators	80% of students report positive experiences with feedback mechanisms.

Develop new extracurricular research clubs and activities for student collaboration.	By Semester 2, 2024	Student Affairs, Faculty Advisors	40% increase in student participation in extracurricular research activities.

Additional Explanation:

- The Faculty will improve its digital learning resources to provide students with access to interactive and up-to-date learning materials, particularly in cutting-edge biotech fields.
- Real-time feedback mechanisms will be implemented to gather immediate student input and make quick adjustments to enhance their learning experience.
- New extracurricular activities, such as student-led research clubs, will be developed to promote student collaboration and enhance their research experience outside the classroom.