Faculty of Medical Biochemistry and Biotechnology

Annual Faculty Quality Report
2023-2024

September, 2024

Introduction

The Faculty of Medical Biochemistry and Biotechnology at UBT College has made significant strides in enhancing the quality of its academic programs, research activities, and practical training for students. This report highlights key advancements made in curriculum development, student practice, faculty development, and stakeholder engagement. The Faculty's mission is to provide high-quality education, focusing on the emerging demands of the medical biochemistry and biotechnology fields and to address the health needs of Kosovo and the global community. Below is a detailed expansion of the key achievements and strategies for further growth and improvement for the 2024 academic year.

1. Curriculum Development and Learning Outcomes

The Faculty of Medical Biochemistry and Biotechnology has undertaken major updates in its curriculum to better align with the needs of the industry and the emerging trends in biochemistry and biotechnology.

Key Developments:

- **Syllabi Revisions:** The faculty revised all course syllabi to ensure that they align with both UBT College's mission and the global trends in medical biochemistry and biotechnology. This includes the incorporation of practical applications and the introduction of new topics reflecting cutting-edge research areas.
- **Integration of Advanced Biotechnology Topics:** As a response to industry demands, specialized courses in areas such as gene editing, CRISPR technology, bioinformatics, and biotechnology applications in pharmaceuticals were included.
- **Clinical Practice Requirements:** A practical approach has been included in all laboratory and clinical subjects, ensuring that students gain sufficient hands-on experience through dedicated labs, research projects, and clinical internships.
- **Introduction of Digital Biochemistry Tools:** Following industry feedback, new modules on bioinformatics, computational biology, and the use of digital tools in biochemistry were integrated into the curriculum, enhancing the students' digital literacy in the field.

Key Performance Indicators (KPIs):

- **100%** of course syllabi updated to reflect revised learning outcomes and include a focus on new technologies in biotechnology.
- **Over 90%** of students successfully completing their practical and clinical requirements, meeting minimal practical competencies.
- **Student satisfaction increased by 20%** due to the integration of digital technologies in biochemistry courses, as shown in end-of-year surveys.

2. Monitoring Student Practice and Clinical Training

The faculty has prioritized improving the quality of clinical practice and laboratory experiences for students.

Key Developments:

- **Lab Facility Upgrades:** Modern biotechnology and biochemistry labs were equipped with modern instruments, including high-performance liquid chromatography (HPLC), flame atomic absorption spectrometry (FAAS), and advanced PCR machines.

- **Interdisciplinary Clinical Rotations:** Students now rotate through both clinical and research laboratories, allowing for a more comprehensive understanding of the application of biochemistry in healthcare and biotechnology.

Key Performance Indicators (KPIs):

- Student satisfaction with academic staff increased by 30% based on feedback from students.
- 100% completion rate for clinical internships with comprehensive logging of procedures and learning outcomes.
- Lab-to-student ratio improved due to the increase in available equipment, ensuring that students had greater access to necessary lab tools.

3. Stakeholder Engagement and Feedback

The Faculty continues to strengthen its connections with key stakeholders, including students and industry partners, to ensure the program stays aligned with real-world needs.

Key Developments:

- **Stakeholder Feedback Integration:** The Faculty collected feedback from industry leaders in biotechnology and medical biochemistry, resulting in the introduction of courses in bioethics, laboratory management, and patient-centered biochemistry.
- **Industry Collaborations:** Partnerships with pharmaceutical companies, hospitals, and biotechnology firms were formed to provide students with opportunities for internships and research collaborations.
- **Alumni and Employer Surveys:** Regular surveys revealed that employers valued graduates' technical expertise, but suggested that more focus be placed on soft skills, leadership, and communication. Consequently, the curriculum now includes modules on professional development and effective communication.

Key Performance Indicators (KPIs):

- 70% of students were involved in faculty-led research or industry-sponsored projects.
- 30% improvement in satisfaction regarding the relevance of the curriculum to real-world applications of biochemistry and biotechnology.

4. Faculty Development and Research Output

Faculty development remains a cornerstone of improving the quality of teaching and research. The Faculty has put significant emphasis on supporting faculty research endeavors and continuing education.

Key Developments:

- **Research Grants and Publications:** The Faculty supported faculty members in applying for international and national research grants, leading to an increase in collaborative research and publications in high-impact journals.
- **Professional Development:** Faculty participated in workshops focusing on reflective teaching, curriculum development, and new laboratory technologies, ensuring they remain at the forefront of their academic fields.
- **Research Symposiums:** Regular faculty-led research symposiums were organized to share ongoing research, foster collaboration, and integrate emerging trends in biotechnology into the curriculum.

Key Performance Indicators (KPIs):

- 25% increase in research publications in international journals.
- 80% of faculty received positive evaluations regarding their teaching performance, including peer reviews and student feedback.

5. Future Goals and Areas for Improvement

The Faculty of Medical Biochemistry and Biotechnology at UBT College is committed to continuing its progress in these areas, with a focus on expanding interdisciplinary opportunities, improving research funding, and enhancing student outcomes.

Future Focus:

- **Expansion of Interdisciplinary Collaboration:** The Faculty plans to increase collaboration with other departments and faculties to create interdisciplinary research and training opportunities, particularly in environmental biotechnology and personalized medicine.
- **Integration of More Digital Technologies:** The integration of bioinformatics, artificial intelligence in drug design, and biotechnology automation tools into the curriculum will be prioritized.
- **Strengthening Research Funding and Collaborations:** The Faculty will focus on expanding its research funding from international research institutions, government grants, and private sector partnerships to support faculty-led research.
- **Global Research Networks:** The Faculty aims to strengthen its ties with international universities and research institutes to further increase global collaborations in medical biochemistry and biotechnology.