

# Dr. D. Y. PATIL BIOTECHNOLOGY & BIOINFORMATICS INSTITUTE

Dr. D.Y. PATIL VIDYAPEETH, PUNE

(Deemed to be University)

Re-accredited by NAAC with a CGPA of 3.62 on a four point scale at 'A' Grade. (An ISO 9001:2015 Certified University)

Ref. No.: DYPBBI/

Date:

#### The Graduate Attributes

Graduate attributes are common to all B. Tech. programs and are identified by the National Board of Accreditation.

- 1. Apply Knowledge
- 2. Solve Problems
- 3. Design/Development of Solution
- 4. Conduct Investigations
- 5. Use Modern Tool
- 6. Engineer and Society
- 7. Environment and Sustainability
- 8. Professional Ethics
- 9. Individual and Team work
- 10. Communicate Effectively
- 11. Project Management
- 12. Life-Long Learning

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TATHAWADE, PUNE - 411033

#### **Graduate Attributes:**

- 1. Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
- 2. Problem Analysis: Identify, formulate, research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.
- 3. Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.
- 4. Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions.
- 5. Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- 6. The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.
- 7. Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.
- 8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
- 9. Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi disciplinary settings.
- 10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations and give and receive clear instructions.
- 11. Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- 12. Life-long Learning: Recognize the need for and have the preparation and ability to engage in independent and life- long learning in the broadest context of technological change.

TATHAWADE PUNE- 411033. CS

DIRECTOR

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## B. TECH. MEDICAL BIOTECHNOLOGY

### **Program Outcome:**

- 1. Apply the knowledge of basic sciences, engineering fundamentals and core biotechnological aspects to solve complex problems in the field of health sciences.
- 2. Acquire the knowledge and skills to design and conduct experiments and interpret the results using the biotechnological principles for modern medical biological applications
- 3. Ability to apply research based knowledge and modern biomedical instrumentations to investigate the biological problems and human health and diseases
- 4. Ability to use modern software tools and biological databases and to apply protein modeling to address issues in drug development and biomedical fields
- 5. Ability to understand the sustainability of biotechnological interference and its impact on health, safety, legal and cultural issues, environment and society and to follow professional and bioethics.
- Acquire experience in working on projects related to human health and diseases, in particular at individual level and as a team member at community, industrial and research environment.
- 7. Ability to communicate effectively at societal and scientific levels, scientific projects and report preparation and to make effective presentations
- 8. Apply medical biotechnological and management principles for effective implementation and management of projects and resources in health and diseases
- Ability to engage in independent and life- long learning to enhance the knowledge and skills for professional advancement



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