

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.

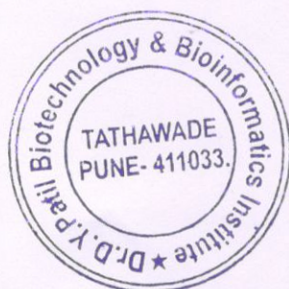
1. Apply Knowledge
2. Solve Problems
3. Design/Development of Solution
4. Conduct Investigations
5. Use Modern Tool
6. Engineer and Society
7. Environment and Sustainability
8. Professional Ethics
9. Individual and Team work
10. Communicate Effectively
11. Project Management
12. Life-Long Learning

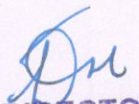



DIRECTOR
Dr. D.Y. PATIL BIOTECHNOLOGY &
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Graduate Attributes:

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.




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M. TECH. (INTEGRATED) BIOTECHNOLOGY

1. Apply the knowledge of basic sciences, engineering fundamentals and core biotechnological aspects to solve complex problems in the field of life sciences.
2. Ability to review literature, design and conduct experiments, analyze and interpret data using critical thinking skills- relevant to various applied fields of biotechnology.
3. Become research oriented biotechnology graduates with ability to apply knowledge and modern biotechnological methodologies to investigate the complex biological problems
4. Ability to use modern bioinformatics software tools and biological databases to address issues in biomedical and environmental fields
5. Ability to understand the sustainability of biotechnological interference, develop solutions to biotechnology engineering problems and its impact on health, safety, legal and cultural issues, environment and society.
6. Ability to understand the professional and bioethics and responsibilities towards environment and society while following biotechnological applications
7. Acquire experience as an effective communicator and can handle projects at individual level and as a team member at industrial and research environment.
8. Apply biotechnological and management principles for effective management of projects and resources and can manage entrepreneurship ventures, and thus suitable contributors to industrial sectors engaged in Biotechnology.
9. Ability to engage in life- long learning to enhance the knowledge and skills for professional advancement




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