

**TABLE 1: relationship between ABET outcomes and NYIT core Learning Outcomes-
Mechanical Engineering**

<p>NYIT MISSION</p>	<p>NYIT LEARNING GOALS</p> <p><i>By the time of graduation, NYIT students will be able, at the appropriate level (baccalaureate, masters or professional) to:</i></p>	<p>ACADEMIC PROGRAM LEARNING GOALS</p> <p>Baccalaureate Level BS Mechanical Engineering</p>
<p>Career Oriented Professional Education</p>	<p>Gain a coherent understanding of the knowledge, skills, and values of their discipline</p>	<p>a) Apply knowledge of computing and mathematics appropriate to the discipline.</p> <p>b) Analyze a problem and identify and define the computing requirements appropriate to its solution.</p> <p>i) Use current techniques, skills, and tools necessary for computing practice.</p> <p>j) Apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices.</p>

<p>Applications Oriented Research</p>	<p>Integrate academic and co-curricular learning to explore concepts and questions that bridge disciplines, professions, and cultures</p> <p>Formulate evidence-based and ethical courses of action or conclusions to address challenges and problems</p> <p>Engage with, respond to, and reflect on political, social, environmental and economic challenges at local, national, and global levels</p>	<p>c) Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.</p> <p>e) Understand professional, ethical, legal, security, and social issues and responsibilities.</p> <p>g) Analyze the local and global impacts of computing on individuals, organizations, and society.</p> <p>k) Apply design and development principles in the construction of software systems of varying complexity.</p>
<p>Access to Opportunity</p>	<p>Achieve proficiency in oral and written communication, scientific and quantitative reasoning, critical analysis, technological competency, and information literacy</p> <p>Develop self-efficacy, professionalism, creativity, and an innovative spirit</p>	<p>d) Function effectively on teams to accomplish a common goal</p> <p>f) Communicate effectively with a range of audiences</p> <p>h) Engage in and recognize the need for continuing professional development.</p>