

Seven “Truths” That Will Shape the Future of Welding and Joining Education

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Abstract

The demand for welding and other forms of joining will increase both in volume and sophistication as new developments in materials continue to advance, and demands for simultaneous improvements in performance, reliability, and cost become the norm rather than the exception. To meet these demands, an ever-refreshed supply of skilled practitioners—at all levels—will be needed; thus placing added pressure on higher education in the field. But, for higher education to respond properly, it is essential to understand how the practice of welding and joining will change in the future, as this practice will surely change. This presentation proposes seven changes that almost seem to be givens or “truths” that will – or should – shape the future of higher education in welding and joining. These relate to where problems in welding and joining really come from, what really leads to poor quality, why automation will have to displace manual processes, how automated processes should really be controlled, Why quality must begin with design, how other forms of joining will demand more experts, and how the skill level of practitioners will have to grow to unprecedented levels even with growth in automation.