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Rethinking Teaching to Foster Student Success in a Fast-Changing World due to COVID-19 Disruption.

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Higher education has been impacted by the COVID-19 pandemic disruption. In particular, STEM education, which relies much on hands-on and active learning teaching methods as well as laboratory-based learning, has been widely disrupted. Long-standing teaching pedagogies have to be rethought and reevaluated in order to survive in this rapidly changing new normal. Most first time college students as well as continuing students are finding it very difficult to connect with the community due to the lack of real face time with their peers, instructors, and mentors. At the New Jersey Institute of Technology, the Institute for Teaching Excellence led the efforts to embrace technology and innovative teaching methods to engage students in all modalities of instructional delivery. This presentation will cover an overview of the challenges we face, different tools and methodologies available to take on the challenge, and what has and what has not worked effectively for STEM students. The most effective methods in helping students succeed in the pandemic era classroom come from a synergetic blend of traditional and modern teaching pedagogies. This work was done in collaboration with NJIT's Institution for Teaching Excellence colleagues Melodi Guilbault. and Jaskirat Sodhi.