

# STEM EDUCATION AND EMERGING TECHNOLOGIES, ADVANCED CERTIFICATE

This 12-credit graduate certificate provides science, technology, engineering and mathematics (STEM) professionals, practitioners and educators with opportunities to understand, assess, evaluate and use technologies to enhance and network learning within and about their specific content areas and needs. This certificate meets the needs of STEM educators in community colleges, higher education, graduate and professional schools also are being challenged to better understand learners, educational theories and methods of assessment and evaluation, as well as to integrate 21st century skills and technologies so they can be more effective in their teaching.

## Program Delivery and Tuition Rate

This certificate program is delivered through online courses and is billed at the non-MBA rate.

Students may begin this 12-credit certificate in the fall or spring terms. The required courses and suggested sequence are as follows:

Code	Title	Credits
EDET 6005	Learning with Emerging Technologies: Theory & Practice	3
EDET 6125	Developing an Integrated Immersive STEM Learning Environment	3
EDET 6150	STEM Tools Devices & Simulations	3
Choose One (3 credits):		3
EDET 6025	Assessing Learning in Digital Environments	
OR		
EDET 6080	Evaluation Assessment and Data Driven Learning Design	
<b>Total Credits</b>		<b>12</b>

Upon completion of this program, students should be able to:

- Have an enhanced understanding of and integration among the many emerging and existing technologies and devices that can acquire data, information, images, ideas, and interactions and can present an increased ability to share this knowledge and information with learners, employees, students, clients, patients, museum visitors, other STEM developers and professional networks.
- Produce a conceptual, educational and psychological framework for learning, particularly when STEM topics are integrated with 21st century skills, technologies and collaborations.
- Understand the ways to assess the learning of individual "students" (students, clients, etc. of the participant) to improve their understanding within a technology-facilitated STEM learning environment and of the analytics and evidence necessary to evaluate program performance within the larger instructional framework.
- Enhance the knowledge-base within this emerging field of study and to develop professional relationships that can continue beyond the certificate courses.
- Identify and incorporate digital tools that address needs of diverse learners, especially those with disabilities.